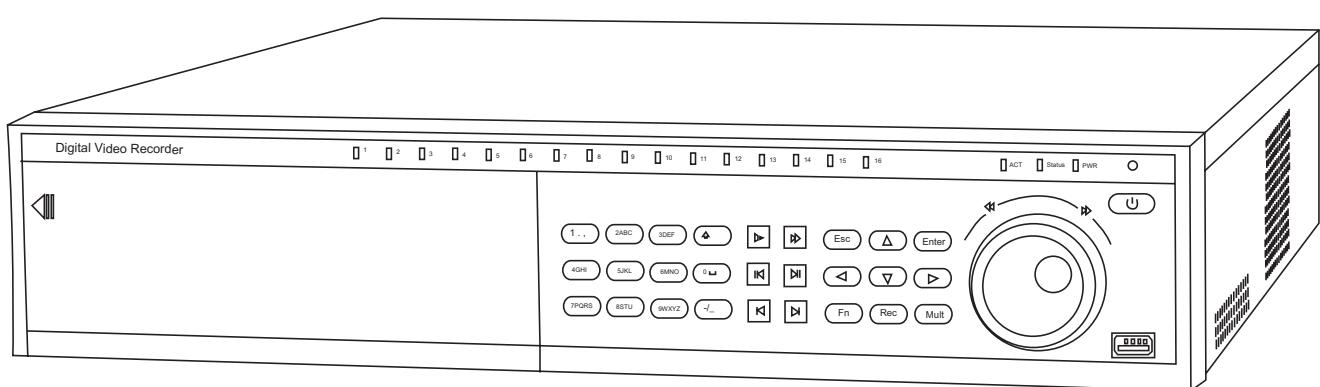


- 4 / 8 / 16 CH DVR, LAN, Central Management Software
- 4 305 57 / 66 / 45 / 4 305 58 / 67 / 46 / 4 305 59 / 68 / 47



## USER MANUAL

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## 1. Packing detail

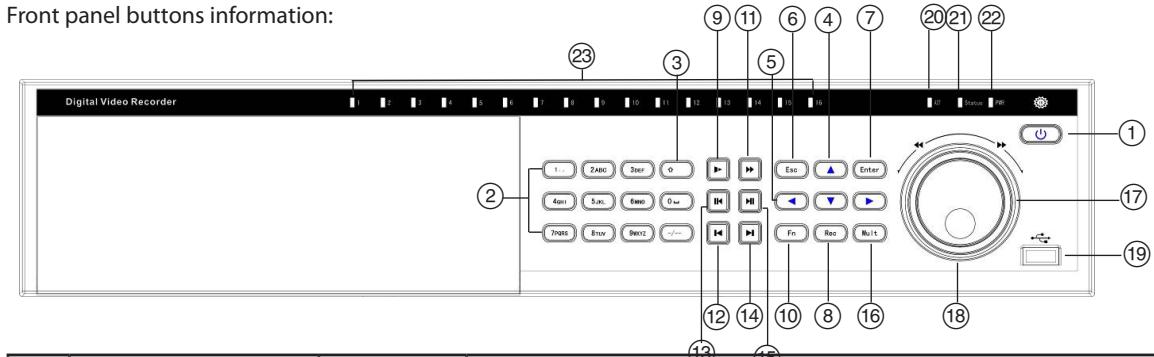
Item description	Item picture	Qty
DVR		1
HDMI		1
Ethernet		1
Mouse		
Remote control		
Input / output cables		4
Rack units + screws		2
HDD accessories / HDD power cable		
Quick start guide and CD		1
Audio connector (Not included in the 4 channels DVR)		1
Power cord		1

## 2. Overview and controls

This section provides information about front panel and rear panel. When you install the DVR, refer to this part first.

### 2.1 Front Panel

Front panel buttons information:



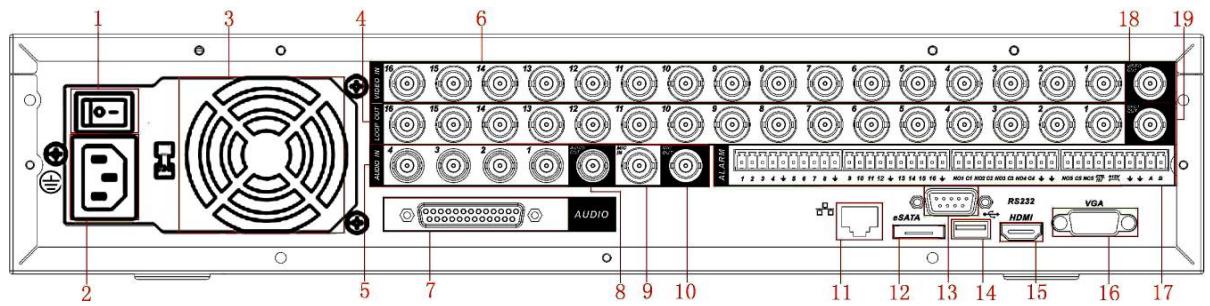
	Name	Icon	Function
1	Power button		Power button, press this button for three seconds to boot up or shut down DVR.
2	Number buttons 0 to 9	0 - 9	Camera select / numeric button.
	Input number more than 10	- / --	If you want to input a number more than 10, click on this button and you can input more than one number.
3	Shift		In textbox, click on this button to switch between number, small letter, capital letter and special character. Enable or disable tour.
4	Up / Down		Activate current control, modify setup, and then move up and down. Increase / decrease numeral. Assistant function such as PTZ menu.
5	Left / Right		Shift current activated control, and then move left and right. When playback, click these buttons to control playback bar.
6	ESC		Go to previous menu, or cancel current operation. When playback, press to restore real-time monitor mode.
7	Enter		Confirm current operation. Go to default button. Go to menu.
8	Record		Manually stop / start recording, working with direction keys or numeral keys to select the recording channel.
9	Slow play		Multiple slow play speeds or normal playback.
10	Auxiliary button		<b>One-window monitor mode</b> , click on this button to display assistant function: PTZ control and image color. Backspace function: in numeral control or text control, press it for 1.5 seconds to delete the previous character before the cursor. In motion detection setup, working with Fn and direction keys to realize setup.  In text mode, click on it to switch between number, small letter, capital letter and special character. In HDD management interface, you can click on it to switch HDD record information and other information (Menu prompt) Realize other special functions.
11	Fast Play		Various fast speeds and normal playback.

---

	<b>Name</b>	<b>Icon</b>	<b>Function</b>
12	Play previous		In playback mode, playback the previous video.
13	Reverse / Pause		In normal playback or pause mode, click on this button to reverse Playback. In reverse playback, click this button to pause playback.
14	Play Next		In playback mode, playback the next video. In menu setup, go to down ward of the dropdown list.
15	Play / Pause		In normal playback click on this button to pause playback. In pause mode, click on this button to resume playback.
16	Window switch		Click on it to switch one-window / multiple-window.
17	Shuttle(outer ring)		In real-time monitor mode it works as left / right direction key.
18	Jog(inner dial)		Playback mode, counter clockwise to forward and clockwise to backward. Up / down direction key. Playback mode, turn the inner dial to realized frame by frame playback. (Only applies to some special versions.)
19	USB port		To connect USB storage device, USB mouse.
20	Remote control indication light	ACT	Light on the DVR can receive the IR signal from the remote control.
21	Status indication light	STATUS	If there is "Fn" indication light, current status indication light is null.
22	Power indication light	PWR	Power indication light.
23	Record light	1 - 16	Indicates which channel is recording.

## 2.2 Rear Panel

Rear panel is shown below.



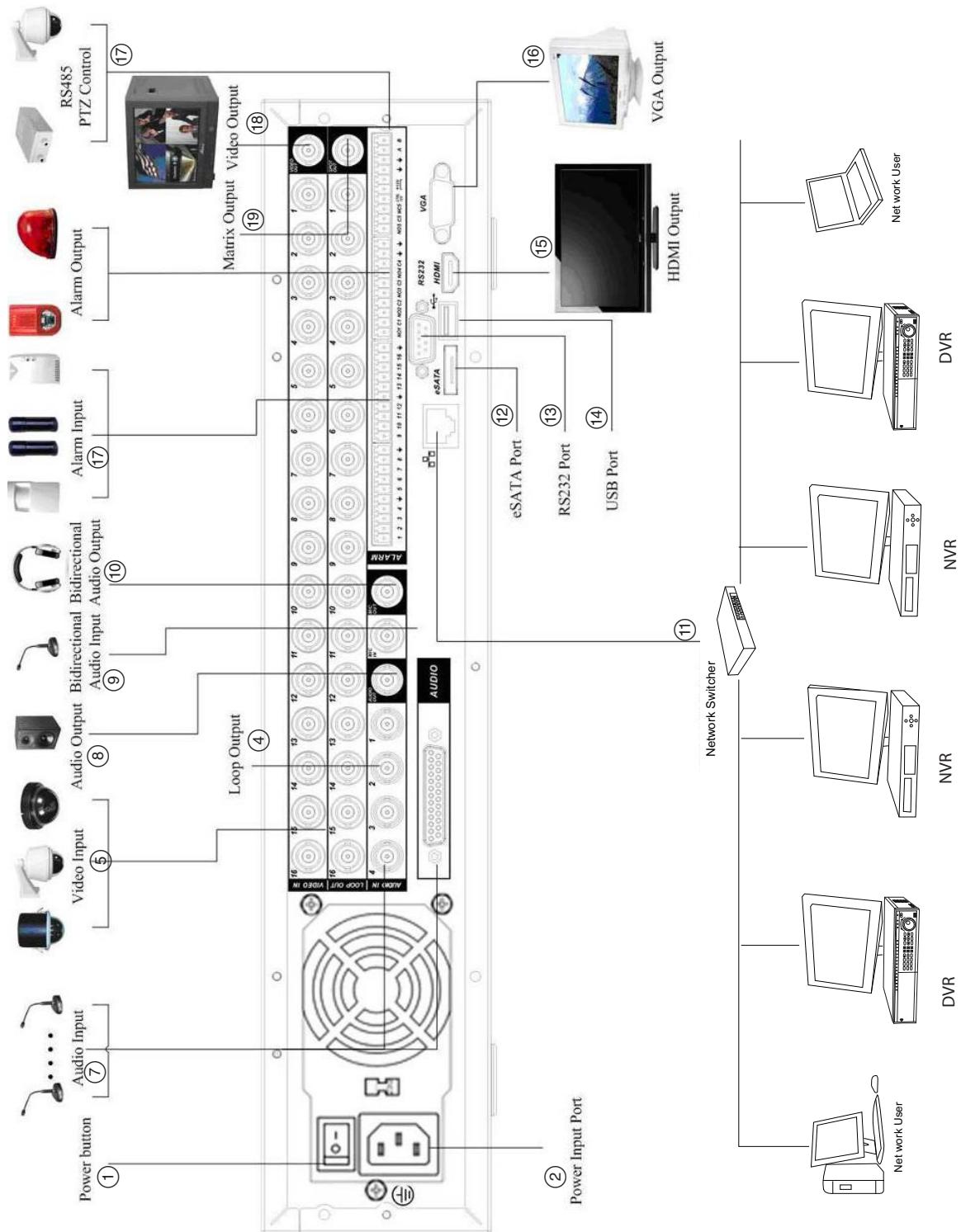
Rear panel information:

1	Main power switch.
2	Power supply.
3	Fan.
4	Loop video output.
5	1st to 4th-channel audio input.
6	Video input. BNC input port for cameras (4 / 8 / 16).
7	DB25 port (5th to 16th-channel audio input port).
8	Audio output.
9	Bidirectional talk input port.
10	Bidirectional talk output port.
11	Network port.
12	eSATA port for external hard drive.
13	RS232 port. It is for general COM debug to configure IP address or transfer transparent COM data.
14	USB port to connect USB key or mouse.
15	HDMI port for HDMI monitor.
16	Video VGA output port for VGA monitor.
17	Alarm input / alarm output / RS485 port, PTZ device.
18	Video CVBS output.
19	Video matrix output.

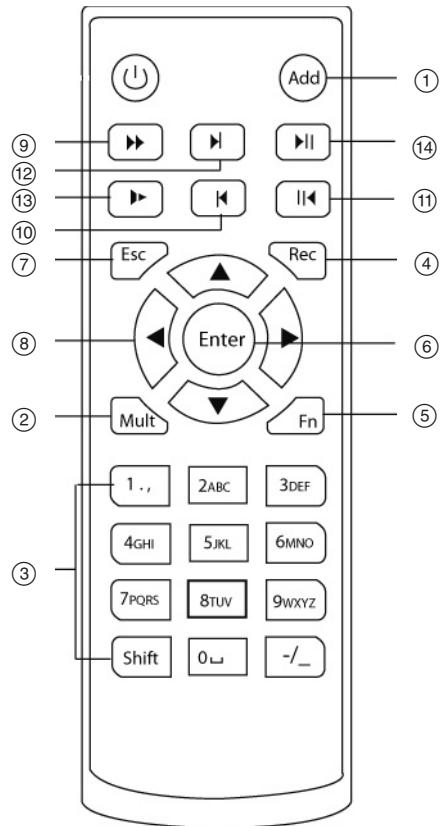
When you connect the Ethernet port, use crossover cable to connect the PC and use the straight cable to connect to the switcher or router.

## 2.3 Connection Sample

Refer to the scheme below for connection sample.



## 2.4 Remote control



Name	Icon	Function
1	Address	When you have several DVR, input the device number you have set in MAIN MENU -> SETTING -> GENERAL, field "DVR N°", so you can control it.
2	Multiple-window switch	Switch between one-window and multiple-window.
3	0-9 number key	Input password, channel or switch channel. Shift is the button to switch the input method.
		In textbox, click this button to switch between number, small, letter, capital letter and special character.
		Open / close tour.
4	Record	Enable or disable record function manually. In record control menu, working with direction keys to select record channel.
5	Auxiliary key	In 1-ch monitor mode: pop up assistant function: PTZ control and Video color.
6	Confirm / menu key	Confirm current operation. Go to the default button. Go to the menu.
7	Cancel	Go back to the previous menu or cancel current function menu (Close the upper interface or control.) In playback mode, play the previous file.

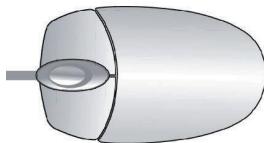
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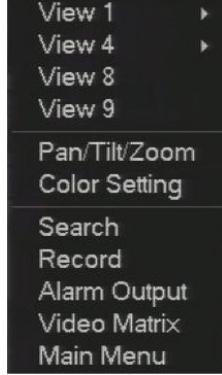
Name	Icon	Fonction
8	▲, ▼	Up / down Activate current control, modify setup. Increase / decrease number. Assistant function such as PTZ menu.
	◀, ▶	Left / right Shift current activated control. When playback, click these buttons to control playback bar.
9	Forward	Various forward speeds and normal speed playback.
10	Previous	Please refer to the previous in the front panel.
11	Backward	Various backward speeds and normal speed playback.
12	Next	In playback mode, playback the next video
13	Slow play	Multiple slow play speeds or normal playback
14	Play / Pause	Reverse playback or paused mode, click this button to realize normal playback. In normal playback click this button to pause playback. In pause mode, click this button to resume playback. In real-time monitor mode, click this button to enter video search menu.

---

## 2.5 Mouse operation

Please refer to the following sheet for mouse operation instruction.



Left click mouse:	System pops up password input dialogue box if you have not logged in. In real-time monitor mode, you can go to the main menu. When you have selected one menu item, left click on the mouse to view menu content. Implement the control operation. Modify checkbox or motion detection status. Click on combo box to pop up drop down list. In input box, you can select input methods. Left click on the corresponding button on the panel you can input numeral, small letter, capital letter and special characters.
Double left click mouse:	Implement special control operation such as double click on an item in the file list to playback the video. In multiple-window mode, double left click one channel to view in full-window. Double left click current video again to go back to previous multiple-window mode.
Right click mouse:	In real-time monitor mode, pops up shortcut menu: 
Press middle button:	In play back mode, returns to previous windows or previous menu. In numerical input box: Increase or decrease numeral value. Switch the items in the check box. Page up or page down.
Drag mouse:	Select motion detection zone. Select privacy mask zone.

---

## **2.6 Front Panel**

Click “Fn” key and use direction keys to select number you want.

Click on “Enter” button to valid.

Use > or < to shift between small letter and capital letter.

## 3 Installation and Connections

**Note:** All the installation and operations here should conform to your local electric safety rules.

### 3.1 HDD Installation

The DVR is provided with a SATA HDD and it can be equipped with maximum 8 SATA HDDs.

Recommended models are:

- SEAGATE Barracuda series
- SEAGATE SV35 series
- WESTERN DIGITAL Caviar series.

Follow the instructions below to install hard disk.

		
1. Loosen the screws of the upper cover	2. Remove the HDD upper bracket	3. Now you can see the bottom bracket
		
4. Line up the HDD to the four holes of the HDD bracket	5. Use four screws to fix HDD	6. Install the upper bracket and then use screws to fix HDD in the bracket
		
7. Unfasten the HDD power cable	8. Insert the HDD power cable	9. Use the special data cable to connect the HDD and the SATA port. Close the chassis and fix the screws to secure firmly.

### 3.2 Rack Installation

The DVR occupies 2 rack units of vertical rack space.

- Use twelve screws to fix the unit.
- Please make sure the indoor temperature is below 35°C (95°F).
- Please make sure there is 15cm (6 inches) space around the device to guarantee sound ventilation.
- Please install from the bottom to the top.
- If there are more accessories connected in the rack, please take precaution measures in case the rack power is over-load.

### 3.3 Connecting Power Supply

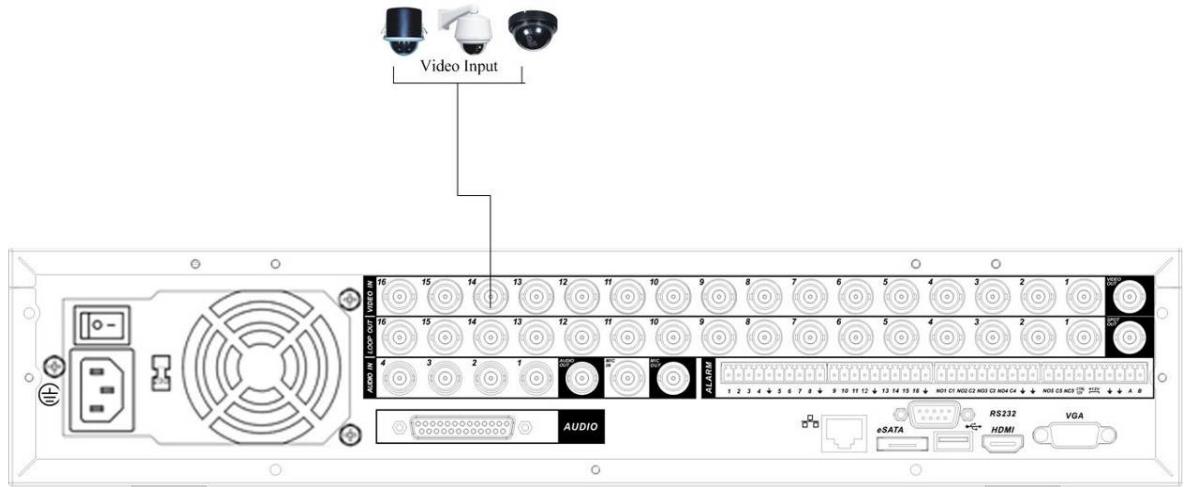
Please check input voltage and device power button match or not.

We recommend you use UPS to guarantee steady operation, DVR life span, and other peripheral equipments operation such as cameras.

### 3.4 Connecting Video Input and Output Devices

#### Connecting Video Input

The video input interface is BNC. The input video format includes: PAL BNC (1.0V.p-p, 75 Ω)



Preferably use VGA or HDMI connections for better image quality.

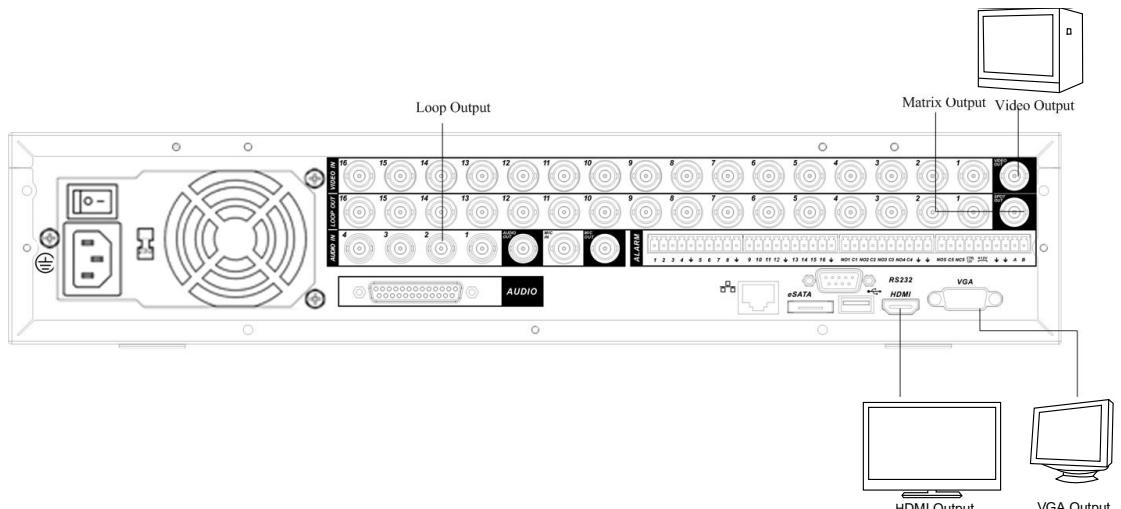
#### Connecting Video Output

Video output includes BNC (1.0V.p-p, 75 Ω) output, VGA output and HDMI output. System supports BNC, VGA and HDMI output at the same time.

When you are using pc-type monitor to replace the monitor, please pay attention to the following points:

- To defer aging, do not allow the pc monitor to run for a long time.
- Regular demagnetization will keep device maintain proper status.
- Keep it away from strong electromagnetic interference devices.

Using TV as video output device is not a reliable substitution method. You also need to reduce the working hour and control the interference from power supply and other devices. The low quality TV may result in device damage.



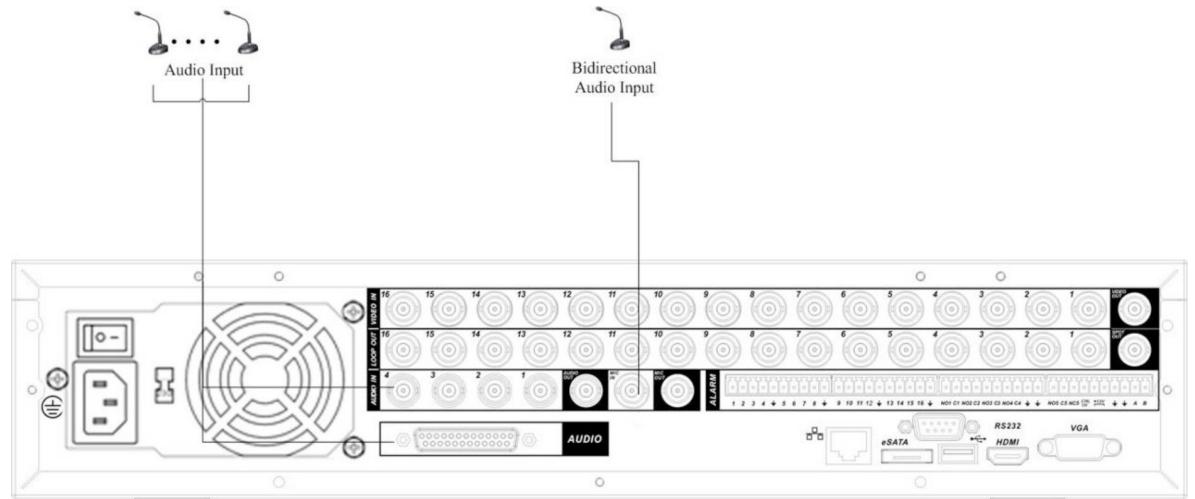
### 3.5 Connecting Audio Input & Output, Bidirectional Audio

#### Audio Input

The DVR audio inputs adopt BNC port. Device supports bidirectional talk via BNC.

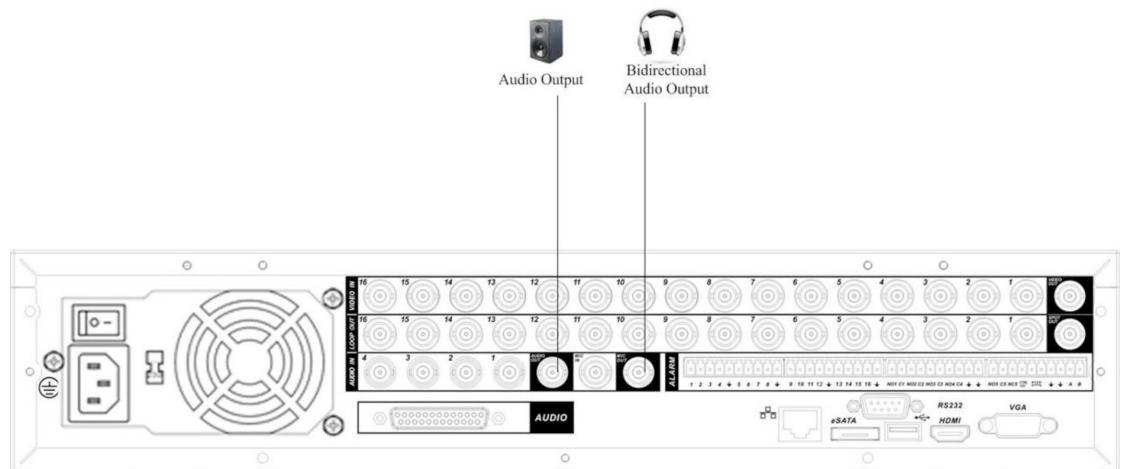
Due to high impedance of audio input, use active sound pick-up. Audio transmission is similar to video transmission. Try to avoid interference, dry joint, loose contact and it shall be away from high tension current.

#### Audio Output



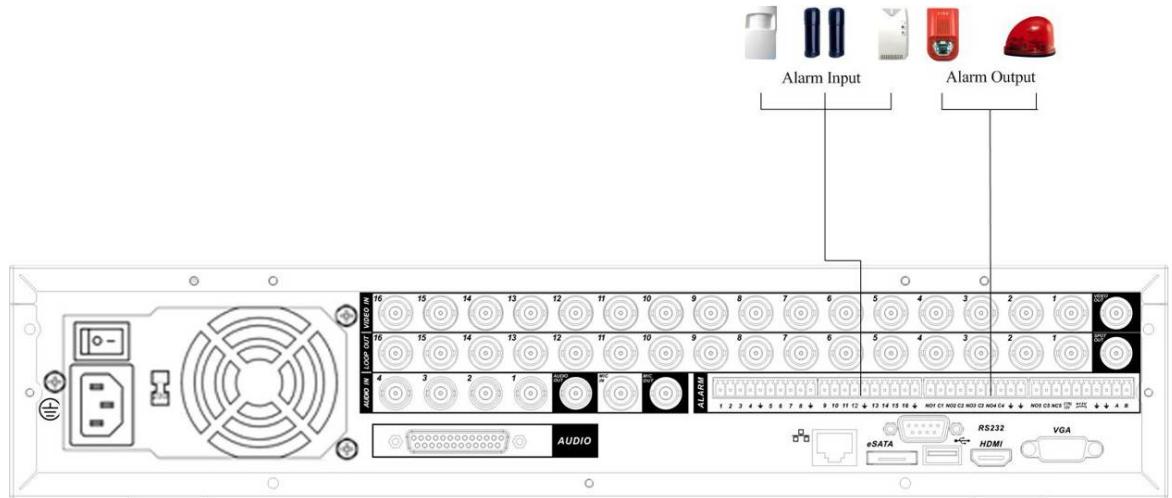
The audio output signal parameter is usually over 200mv 1KΩ (BNC). It can be directly connected to low impedance earphone, active sound box or amplifier-drive audio output device. If the sound box and the pick-up cannot be separated spatially, it is easy to arouse squeaking. In this case you can adopt the following measures:

- Use better sound pick-up with better directing property.
- Reduce the volume of the sound box.
- Using more sound-absorbing materials in decoration can reduce voice echo and improve acoustics environment.
- Adjust the layout to reduce happening of the squeaking.



### 3.6 Alarm Input and Output Connection

Refer to the following sheet for alarm input and output connection.



You can select two alarm input types: Normal Open (NO) and Normal Close (NC).

#### 1. Alarm input

- Make sure alarm input mode is grounding alarm input.
- Grounding signal is needed for alarm input.
- Alarm input needs the low level voltage signal.
- Alarm input mode can be either NO (Normal Open) or NC (Normal Close).
- When you are connecting two DVRs or you are connecting one DVR and one other device, use a relay to separate them.

#### 2. Alarm output

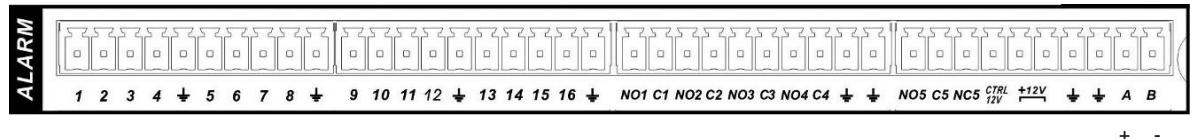
The alarm output port should not be connected to high power load directly (It shall be less than 1A) to avoid high current which may result in relay damage. Use the contactor to realize the connection between the alarm output port and the load.

#### 3. How to connect PTZ decoder

- Ensure the decoder has the same grounding with DVR, otherwise you may not control the PTZ. Shielded twisted wire is recommended and the shielded layer is used to connect to the grounding.
- Avoid high voltage. Ensure proper wiring and some thunder protection measures.
- For too long signal wires,  $120\Omega$  should be parallel connected between A, B lines on the far end to reduce reflection and guarantee the signal quality.
- RS 485 A, B of DVR cannot parallel connect with "RS485 port" of other device.
- The voltage between of A, B lines of the decoder should be less than 5v.

#### 4. Please make sure the front-end device is linked to ground

Improper grounding may result in product damage.



## Alarm Input and Output Details

You can refer to the following sheet for input and output alarm information.

From the left to the right; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	Alarm input 1 to Alarm input 16. The alarm becomes active in low voltage.
NO1 C1, NO2 C2, NO3 C3, NO4 C4, NO5 C5 NC5	Alarm output. The first four are four groups of Normal Open activation output ("on / off" button). For example, connect NO1 to earth. NO5 C5 NC5 is a group of NO / NC activation output ("on / off" button).
CTRL 12V	Control power output. You need to close the device power to cancel the alarm.
+12V	It is external power input. Need the peripheral equipment to provide +12V power (below 1A).
	Ground cable.
RS485 A, B	RS 485 communication port. They are used to control devices such as PTZ. Please parallel connect 120Ω between A+ / B- cables if there are too many PTZ decoders.

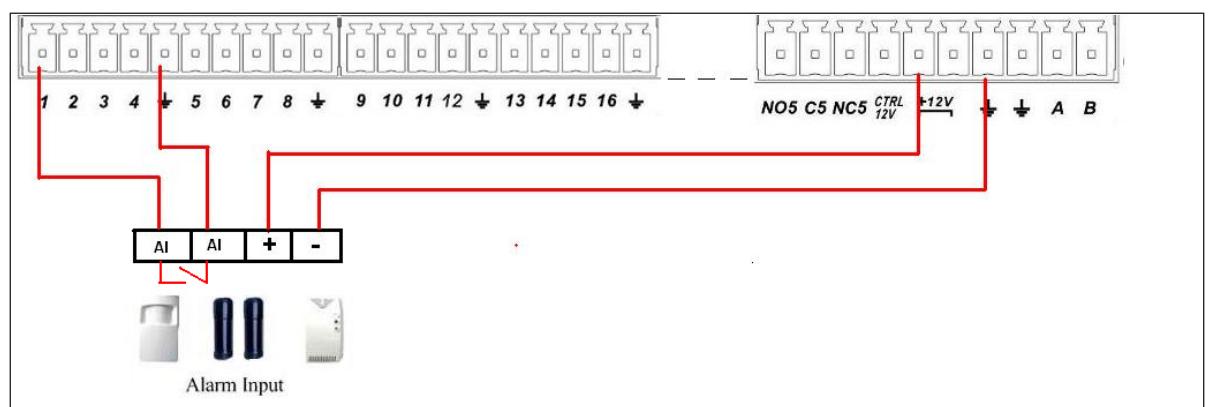
## Alarm Input Port

Please refer to the following sheet for more information.

- 4 / 8 / 16-ch grounding alarm inputs. (Normal Open or Normal Close type).
- Parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).
- Parallel connect the Ground of the DVR and the ground of the alarm detector.
- Connect the NC port of the alarm sensor to the DVR alarm input (ALARM).
- Use the same ground with that of DVR if you use external power to the alarm device.
- Use the controllable +12V power to reset the smoke sensor remotely.

### Example 1: Input alarm connection.

The end device is Normally Open (NO) or Normally Close (NC) and the DVR can be set in MAIN MENU->SETTING->ALARM.  
If the end device is NO the alarm setting in the DVR is NO.  
If the end device is NC the alarm setting in the DVR is NC.

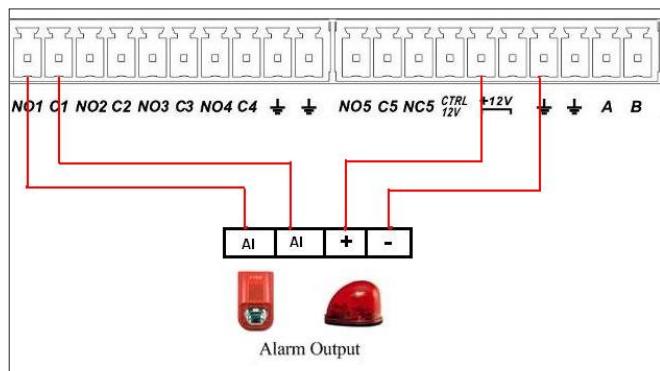


## Alarm Output Port

- Provide power to peripheral alarm device.
- To avoid overloading, please read the following relay parameters sheet carefully.
- Controllable +12V, can be used to provide power to devices such as reset smoke sensor.
- RS485 A / B cable is for the A / B cable of the decoder PTZ.

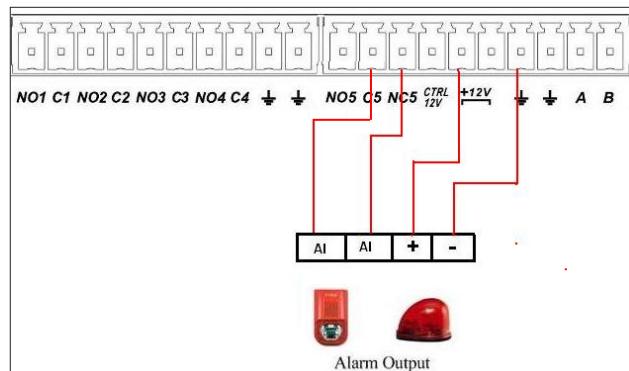
Cabling gives the alarm status NO or NC. The alarms are controlled by "Manual", "Schedule" and "Stop" actions in the MAIN MENU->ADVANCED->ALARM OUTPUT.

**Example 2: Alarm output NO (Normally Open) connection.** N01 C1, N02 C2, N03 C3, N04 C4 and N05 C5. In this case, the "Stop" action opens the circuit (ex:the light is off) and the "Manual" action closes the circuit.



**Example 3: Alarm output NC connection NC5 C5.**

In this case, the "Stop" action closes the circuit (ex:the light is on) and the "Manual" action opens circuit.



## Relay Specification

Material of the touch	Silver	
Rating (Resistance Load)	Rated switch capacity Maximum switch power Maximum switch voltage Maximum switch currency	30VDC 2A, 125VAC 1A 125VA 160W 250VAC, 220VDC 1A
Insulation	Between touches with same polarity Between touches with different polarity Between touch and winding	1000VAC 1minute 1000VAC 1minute 1000VAC 1minute
Surge voltage	Between touches with same polarity	1500V (10x160us)
Length of open time	3ms max	
Length of close time	3ms max	
Longevity	Mechanical Electrical	50x106 times (3Hz) 200x103 times (0.5Hz)
Temperature	-40°C ~+70°C	

---

### 3.7 RS232

You can connect the DVR with POS or Keyboard through RS232.

With POS system, the DVR can communicate through RS232 and the network.

The DVR can also integrate text content and even search the record based on the text.

Please contact the technical support to implement this function.

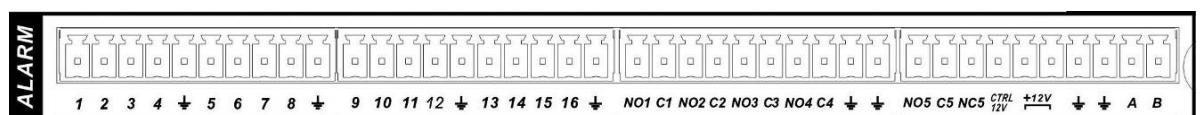
### 3.8 RS485

When the DVR receives a camera control command, it transmits that command up the cable to the PTZ device. RS485 is a single-direction protocol; the PTZ device can't return any data to the unit. To enable the operation, connect the PTZ device to the RS485 (A,B) input on the DVR.

Since RS485 is disabled by default for each camera, you must enable the PTZ settings first. This series DVRs support multiple protocols such as Pelco-D, Pelco-P.

To connect PTZ devices to the DVR:

1. Connect RS485 A+ / B- on the DVR rear panel.
2. Connect the other end of the cable to the proper pins in the connector on the camera.
3. Please follow the instructions to configure a camera to enable each PTZ device on the DVR.



## 4 Graphic User Interface Operations

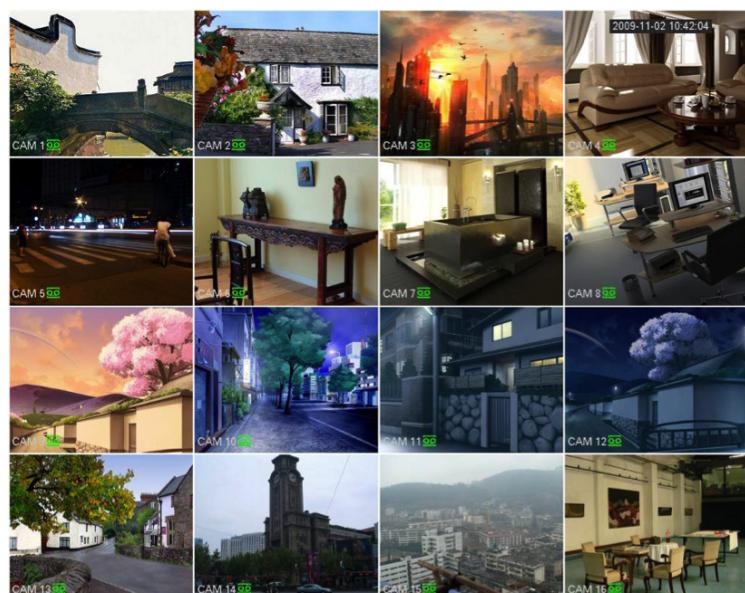
Connect the device to the monitor and to the cameras, insert the mouse and connect the power cable. Push the on / off button in the rear panel and then you can see the analog video output. You can use the mouse to implement some simple GUI operation. Refer to the following chapter for detail information.

### 4.1 In live view

After device booted up, the system is in multiple-channel display mode.

You can see system date, time and channel name. If you want to change system date and time, you can refer to general settings (MAIN MENU -> SETTING -> GENERAL). If you want to modify the channel name, please refer to the display settings (MAIN MENU -> SETTING -> DISPLAY). For detailed operations, see paragraph 5.5.

The wizard is launched and prompts the user to configure the main menus ("General", "TV adjust", "Encode", "Schedule", "Record", "Control" and "Network").



#### Channel display

To display channels and switch between different windows, you can use:

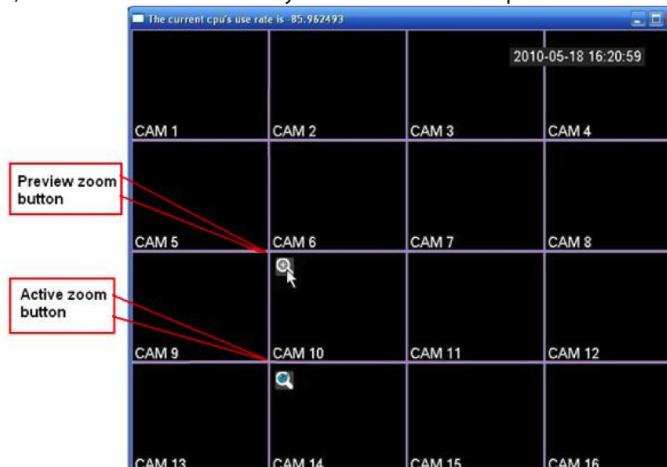
- Right click mouse and choose "view 1", "view 4", "view 8" or "view 9"
- "Mult" button, on remote control or on front panel.

#### Information Screen

1		Recording status	3		Video loss
2		Motion detection	4		Camera lock

### Preview Zoom Function:

Move your mouse to the left top corner of the preview interface; you can see the preview zoom button. You see a hook icon on the picture below, left click on this one. Now you have enabled the preview zoom function.



You can drag the mouse to zoom in the image.



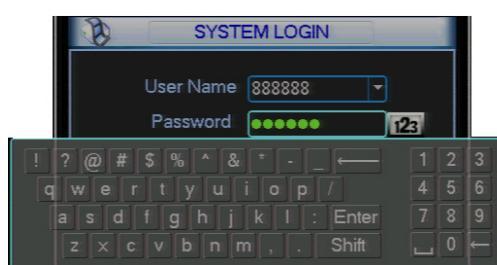
## 4.2 Login

After system booted up, default video display is in multiple-window mode.

Click Enter or left click mouse, you can see the login interface. Input user name and password.

You can use USB mouse, front panel, remote control or keyboard to input.

About input method: Click on **123** to switch between number, small and capital letter and special character.



Factory setting consists of four accounts:

- **Username: 888888 Password: 888888 (administrator, local only)**
- **Username: admin Password: admin (administrator, local and network)**
- **Username: 666666 Password: 666666**  
(Lower authority user who can only monitor, playback, backup and etc.)
- Username: default password: default (hidden user).

### Note:

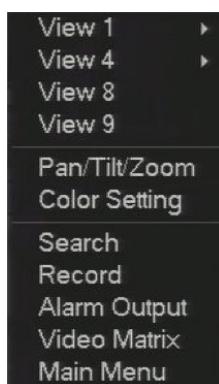
For security reason, please modify the password after your first login.

Within 30 minutes, three times login failure will result in system alarm and five times login failure will result in account lock!

#### 4.3 Right Click Menu

After you logged in the device, a right click mouse, display the short cut menu.

You can set windows display, PTZ control, video color, search record etc. The live view window includes 1 / 4 / 9 / 16.



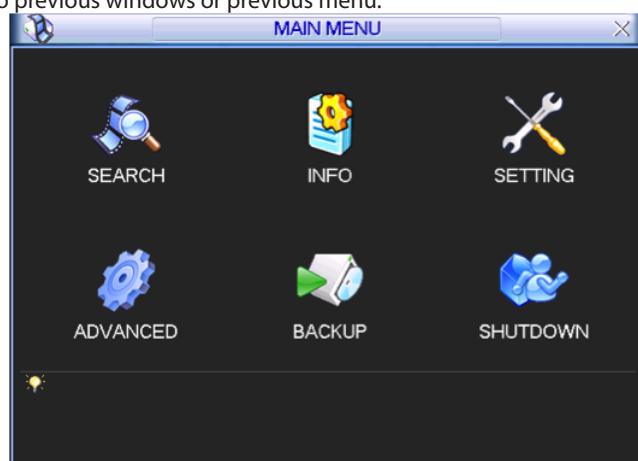
**Important :**

Before starting record or setting action, set the language, the date and time system in MAIN MENU -> SETTING -> GENERAL. Set System time / hour system / language.

#### 4.4 Main Menu

Left click mouse or select "Main Menu" in short cut menu, there are six icons; "SEARCH", "INFO", "SETTING", "ADVANCED", "BACKUP" and "SHUTDOWN". Move the cursor to highlight the icon, then left click mouse to open the sub-menu.

Right click mouse returns to previous windows or previous menu.



For detailed operations, see paragraphe 5.2.

#### 4.5 Manual record

You need to have proper rights to implement the following operations.

There are several ways to activate manual record:

- The shortcut menu, right click mouse on the screen and select "Record" in the list.
- The long menu, go to the MAIN MENU -> ADVANCED -> RECORD.
- Press "Record" button in the front panel or "Record" button of the remote control.



---

### Manual record operations

Use mouse or direction key to highlight a channel number,  means it is not in recording status,  means is in recording status.

There are three statuses: Schedule / Manual / Stop.

Statuses	Functions
Schedule	Channel will record as you have previously set in MAIN MENU -> SETTING -> SCHEDULE. All channel Schedule record: highlight "All" after "Schedule"
Manual	The highest priority. After manual setup, all selected channels will begin ordinary recording. When system is in manual recording, all scheduled set up you have set in the MAIN MENU -> SETTING -> SCHEDULE will be null. All channel Manual record: highlight "All" after "Manual."
Stop	All channels stop recording. System stops all channel recording no matter what mode you have set in the MAIN MENU -> SETTING -> SCHEDULE Stop all channel recording: highlight "All" after "Stop".

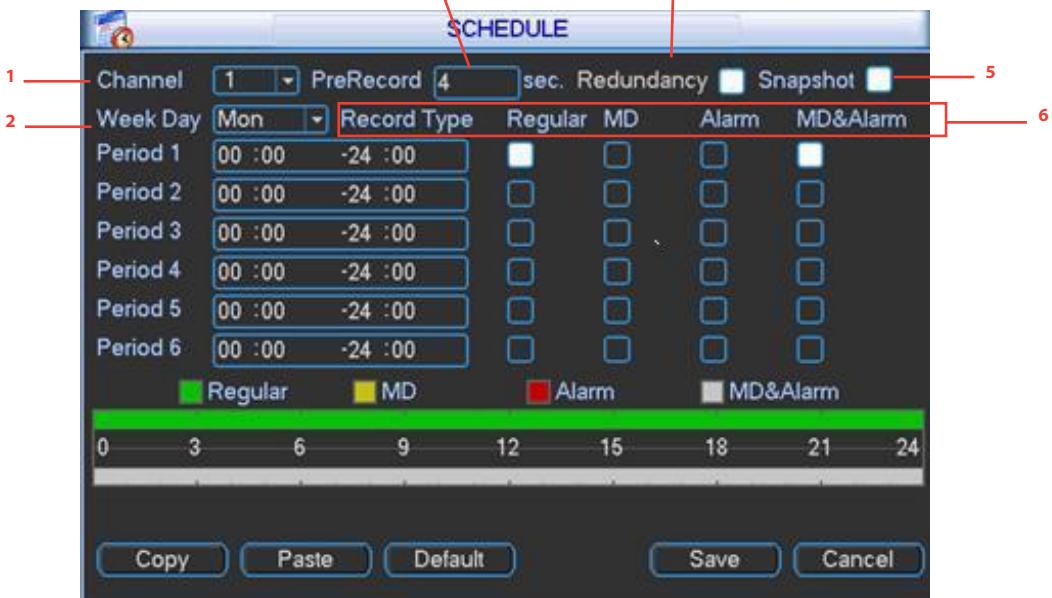
The record statuses begin after clicking on "OK" button. The corresponding indication light in front panel will turn on or turn off.

## 4.6 Schedule

Go to MAIN MENU ->SETTING -> SCHEDULE

The default schedule setting is 24 hours regular mode.

You can define 6 periods for each week days per channel. If "All"/"Week Day" is selected, the periods apply for all the week days.



Number	Item	Function
1	Channel	Select the channel number first. You can select "all" if you want to set for the whole channels.
2	Week day	There are eight options: ranges from Saturday to Sunday and all.
3	Pre-record	system can pre-record the video before the event occurs. The value ranges from 1 to 30 seconds depending on the bit stream.
4	Redundancy	If there are several HDD discs, system supports redundancy backup function. It allows you backup recorded file in two disks. You can highlight "Redundancy" box to activate this function. Before enable this function, set at least one HDD as redundant in MAIN MENU -> ADVANCED -> HDD MANAGE. Refer to HDD manage chapter for more detailed information.
5	Snapshot	you can enable this function to take a snapshot when an alarm occurs. For setting, refer to "Auxiliary Functions" chapter.
6	Record types	there are four types: Regular, Motion Detection (MD), Alarm and MD & alarm. At the bottom of the menu, there are color bars for your reference. The green color stands for regular recording. The yellow color stands for motion detection and red color stands for alarm recording. The white means the MD and Alarm record is setting. Once you have set to record when the MD and alarm occurs, system won't record if only motion detect occurs or if only the alarm occurs.

Highlight the box  to select the corresponding function. After completing all the setups click on "Save" button, the system goes back to the previous menu.

#### 4.7 Research recording and playback

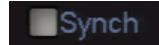
Click search button in the main menu, search interface is shown as below. Usually there are three file types:

- R: Regular recording file.
- A: External alarm recording file.
- M: Motion detection recording file



SN	Name	Function
1	Display / window	Here is to display the searched picture or file. Support 1 / 4 / 9 / 16-window playback.
2	Search type	Here you can select to search the picture or the recorded file. When there is displayed picture on the left pane, you can set the corresponding setup.
3	Calendar	The blue highlighted date means there is picture or file. Otherwise, there is no picture or file. In any play mode, click the date you want to see, you can see the corresponding record file trace in the time bar.
4	Playback mode and channel selection pane	Playback mode 1 / 4 / 9 / 16. (It may vary due to different series.) <ul style="list-style-type: none"> <li>- In 1-window playback mode: you can select 1-16 channels.</li> <li>- In 4-window playback mode: you can select 4 channels according to your requirement.</li> <li>- In 9-window playback mode, you can switch between 1-9 and 10-16 channels.</li> <li>- In 16-window playback mode, you can switch between 1-16 and 17-32 channels.</li> </ul> The time bar will change once you modify the playback mode or the channel option.

SN	Name	Function
5	File list switch button	<ul style="list-style-type: none"> <li>- Double click it, you can view the picture / record file list of current day.</li> <li>- The file list is to display the first channel of the record file.</li> <li>- The system can display max 128 files in one time. Use the <math>\Delta</math> / <math>\nabla</math> or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback.</li> <li>- You can input the period in the following interface to begin accurate search.</li> <li>- File type: R—regular record; A—external alarm record; M—Motion detect record.</li> </ul>  
6	Card number search	The card number search interface is shown as below: 
7	Playback control pane	 <p>Play / Pause  There are three ways for you to begin playback.  - The play button  - Double click the valid period of the time bar.  - Double click the item in the file list.  In slow play mode, click it to switch between play / pause.</p>
		 <p>Stop</p>
		 <p>Backward play  In normal play mode, left click the button, the file begins backward play.  Click it again to pause current play.  In backward play mode, click  to restore normal play.</p>
		 <p>In normal play mode, when you pause current play, you can click  to begin frame by frame playback.  In frame by frame playback mode, click  to restore normal playback.</p>
		 <p>Slow play.  In playback mode, click it to realize various slow play modes such as slow play 1, slow play 2, and etc.</p>
		 <p>Fast forward.  In playback mode, click to realize various fast play modes such as fast play 1, fast play 2 and etc.</p>
		 <p>The volume of the playback</p>
		 <p>Click the snapshot button in the full-screen mode, the system can snapshot 1 picture per second.</p>
8	Time bar	<ul style="list-style-type: none"> <li>- It is to display the record type and its period in current search criteria.</li> <li>- In 4-window playback mode, there are corresponding four time bars. In other playback mode, there is only one time bar.</li> <li>- Use the mouse to click one point of the color zone in the time bar, system begins playback.</li> <li>- The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file.</li> <li>- The green color stands for the regular record file. The red color stands for the external alarm record file. The yellow stands for the motion detect record file.</li> </ul>
9	Time bar unit	<p>The option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can accurately set the time in the time bar to playback the record.</p> <p>The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file.</p>

SN	Name	Function
10	Backup	Select the file(s) you want to backup from the file list. System max supports files from four channels. Then click the backup button, now you can see the backup menu. Click the start button to begin the backup operation. Check the file again you can cancel current selection. System max supports to display 32 files from one channel.
11	Clip	- It is to edit the file. - Please play the file you want to edit and then click this button when you want to edit. You can see the corresponding slide bar in the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time. Click this button again and then save current contents in a new file.
12	Record type	In any play mode, the time bar will change once you modify the search type.
<b>Others functions</b>		
13	 Smart search	When system is playing, you can select a zone in the window to begin motion detect. Click the motion detect button to begin play. <b>Current button is null once the motion detect play has begun.</b> The system will take the whole play zone as the motion detect region by default. The motion detect play stopped once you switch the play file. Operations such as set time bar, click the play button, or any file list operation will stop current motion detect play.
14	 Sync	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.
15	Digital Zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. You can right click mouse to exit.

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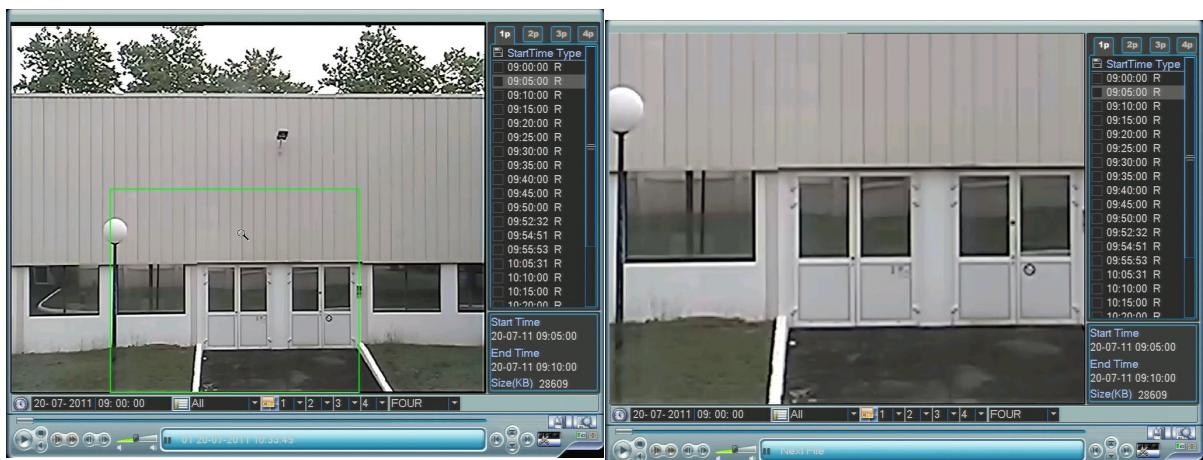
### Full screen (15)

In full screen mode, the toolbar is hidden, put the cursor on the screen bottom to bring it.



### Digital zoom (16)

Drag your mouse in the screen to select a section and then left click mouse to realise digital zoom.



Right click mouse returns to the previous screen.

## 4.8 PTZ

**Note:** To configure the motorized camera which are in our range you have to configure the DVR. All the operations here are based on PELCOD protocol and 2400 Bauds. For other protocols, there might be little differences.

### PTZ Setup

**Note:** The camera video should be in the current screen. Before setup, please check the following connections are right:

- PTZ and decoder connection is right. Decoder address setup is right.

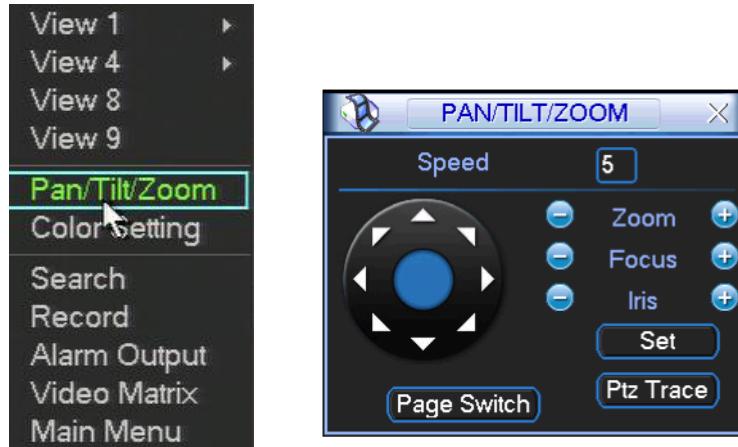
In the MAIN MENU -> SETTING -> PAN / TILT / ZOOM item. The interface is shown below. Here you can set the following items:



Number	Item	Function
1	Channel	Select the current camera channel.
2	Protocol	Select corresponding PTZ protocol such as PELCOD.
3	Address	Default address is 1, input corresponding PTZ address.
4	Baud rate	Select corresponding baud rate. Default value is 9600, input 2400 Bauds
5	Data Bits	Select corresponding data bits. Default value is 8.
6	Stop Bits	Select corresponding stop bits. Default value is 1.
7	Parity	There are several options: odd / even / none / Mark / Space. Default setup is none.

After completing all the settings, click on the "Save" button, system goes back to the previous menu.

In the short cut menu select "Pan / Tilt / Zoom", the motorized camera view display and the PTZ control interface appears.



Number	Item	Function
1	Speed	Value ranges from 1 to 8. Set the camera movement speed.
2	Zoom	Click icon  and  to adjust zoom. (See below for details)
3	Focus	Click icon  and  to adjust focus if the camera is set in manual focus.
4	Iris	Click icon  and  to adjust iris if the camera is set in manual iris.
5	Direction arrows	Adjust PTZ position. There are 8 direction arrows.
6	Set	Manage the preset.
7	Ptz Trace	The mouse on the screen can drive the speed dome direction.
8	Page Switch	Next page.

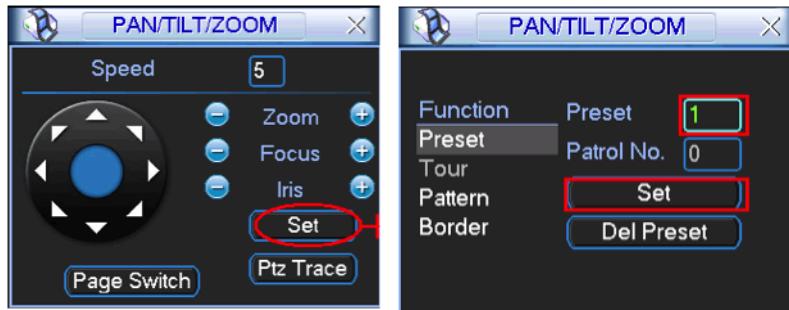
Zoom, focus, iris details

Name	Key	Function	Front pannel key	Key	Function	Front pannel key
Zoom		Far			Near	
Focus		Near			Far	
Iris		close			Open	

## Preset

### Preset Setup

- 1 - Use eight direction arrows to adjust camera to the proper position.
- 2 - Click on the "Set" button in the interface below and enter the preset number you want.
- 3 - The system saves the speed dome position and the preset number when you click on the "Set" button.



You can set the following items:

- Preset : Max 127 positions can be stored as "Preset" position.  
The "Preset" number can be assigned from 1 to 128, but 95 is reserved for starting OSD menu.
- Tour => not available
- Pattern => not available
- Border => not available

### Activate Preset

Click on the "Page Switch", you can see the interface below, input preset number in the "No." blank, and click on the "Pre-set" button. The speed dome goes to the preset number.



### Note:

The "Tour" (Patrol) and the "Pattern" buttons are not available in the auxiliary menu. You can set them using the reserved Preset through the OSD menu of the speed dome. You need to refer the user's manual speed dome. You can define them as you require.

To enter in OSD menu, call "Preset 95". The OSD menu displays.



#### OSD menu control :

- Use the down and up direction arrows to select parameter.
- Save the value and exit with - focus "near".
- Modify with the up and down arrow.
- Cancel the value with - focus "far".

You need to refer to your speed dome user's manual for "Aux Oper".



#### 4.9 Remote connections: Interface Web and mobiles applications

##### Operating system compatibility and navigator for the Web interface

OS Navigator	Win XP - Win 7 - Vista	Mac os
Internet Explorer 7 – 8 – 9	OK	No
Firefox Google Chrome	Ok with plugin "IE Tab"	No
Safari	No	No

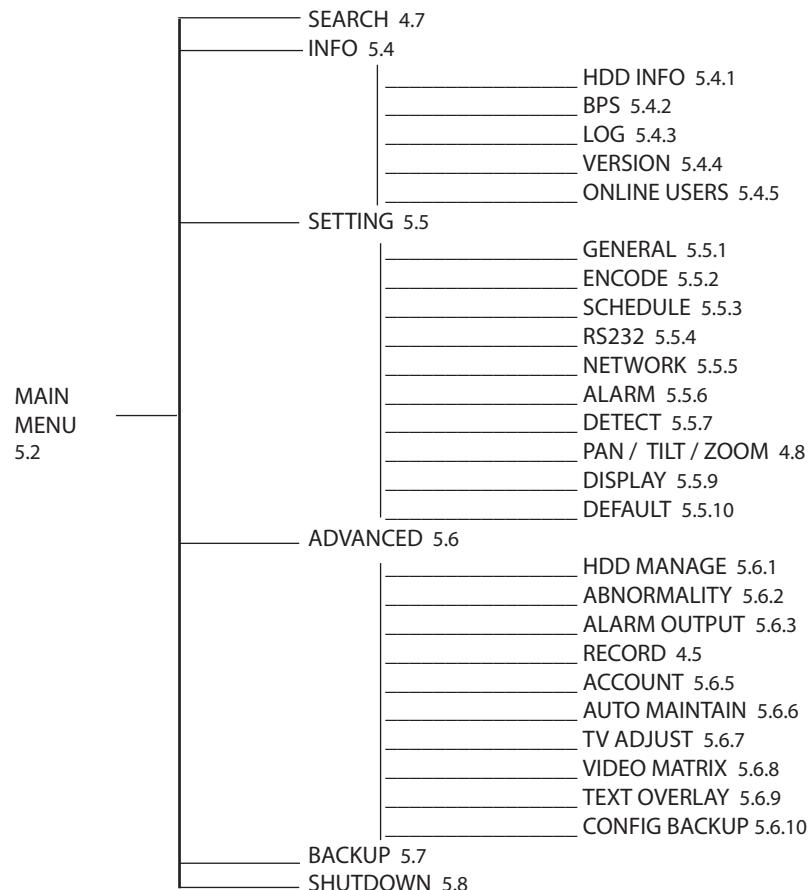
##### Mobile applications

Platform	Iphone IOS4&5	Ipad IOS4&5	Android Symbian (Nokia, Sony / Ericson)	Android version 2.x, 3.x, 4.x	Blackberry	Win Mobile
<b>Name Apps</b>	DMSS (free) iDMSS (free) iDMSS-T (free) DMSS Plus (not free)	iDMSS (free) iDMSS-HD (not free)	General_DMSS- Symbian-Direct_Eng_ IS_V1.53.0.R.110311.sis	DMSS (free) DMSS-Pro (not free) gDMSS (free) gDMSS plus (not free)	DMSS.alx + DMSS.cod	General_DMSS-Mobile- Direct_Eng_N5_IS_ V1.22.1.R. 100903.cab
<b>Downloads</b>	Appstore	Appstore	CD	Play store	CD	CD
<b>PTZ operation</b>	ok	ok	No	ok	No	No

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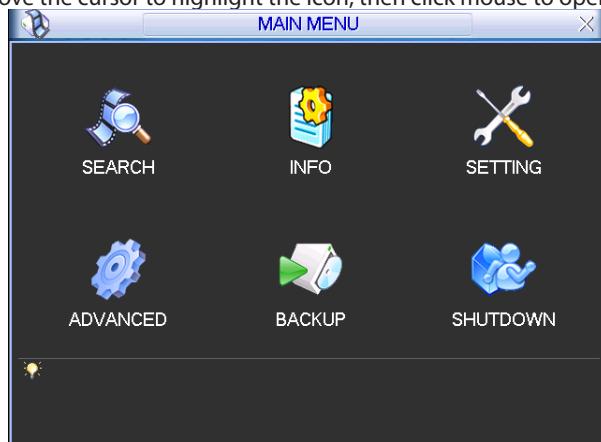
## 5. Understanding of Menu Operations and Controls

### 5.1 Menu Tree



### 5.2 Main Menu

After you logged in, the system main menu is shown below. There are six icons: SEARCH, INFO, SETTING, ADVANCED, BACKUP and SHUTDOWN. Move the cursor to highlight the icon, then click mouse to open the sub-menu.

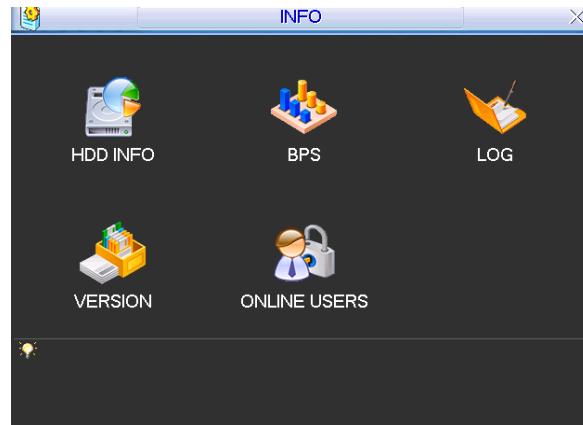


### 5.3 Search

Refer to the "Search Records and Playback" chapter (4.7).

## 5.4 Info

Here is for you to view system information. There are total five items: HDD INFO (hard disk information), BPS (data stream statistics), LOG, VERSION, and ONLINE USERS.'



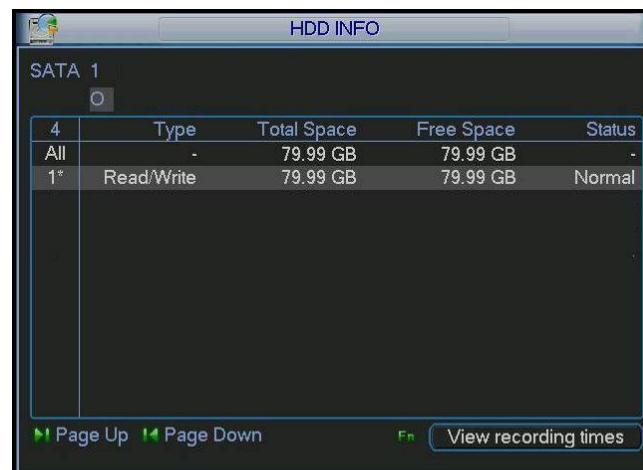
### 5.4.1 HDD Info

Here is to list hard disk type, total space, free space, video start time and status.

<b>0</b>	means current HDD is normal
X	means there is error
-	means there is no HDD
"?"	means the disk is damaged

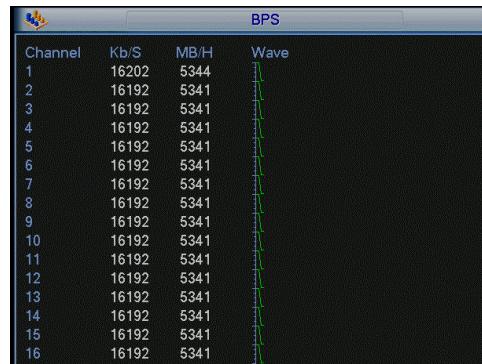
When HDD conflict occurs, you can check the system time and the HDD time are identical. If they are not identical, Go to GENERAL menu (MAIN MENU -> SETTING -> GENERAL) to adjust system time or go to HDD MANAGE menu (MAIN MENU -> ADVANCED ->HDD MANAGE) to format HDD and then reboot the DVR.

After system booted up, if there is any conflict, system goes to HDD information interface directly.



#### 5.4.2 BPS

You can see current video data stream in Kilo Bytes per second (KB / s) and occupied hard disk storage in Mega Bytes per hour (MB / h).



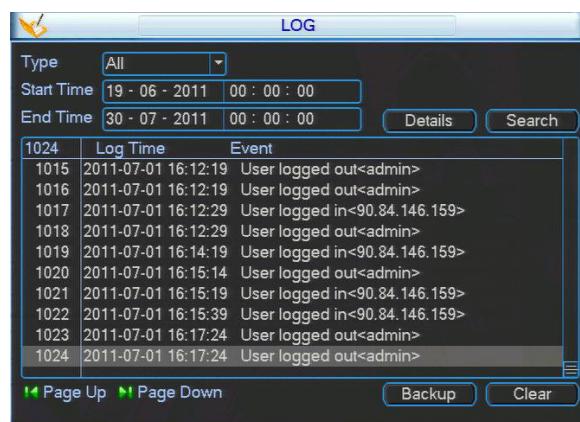
#### 5.4.3 LOG

You can see the system log file. The log file contents 1024 lines and it lists the following information.

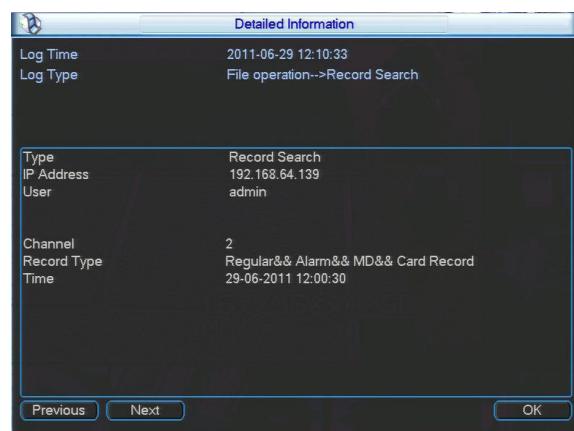
The log types include system operation, configuration operation, data management, alarm event, record operation, log clear and etc.

Select a start time and an end time then, click on the "Search" button. You can see the log files, if there are more than ten file use the "Page Up / Down" button.

System also supports the backup function; you can click on the "Backup" button to save the log files in the USB devices.



When you select an event on the log list, you can see the detailed information of this event clicking on "Detail button". The following window is displayed.



#### 5.4.4 VERSION

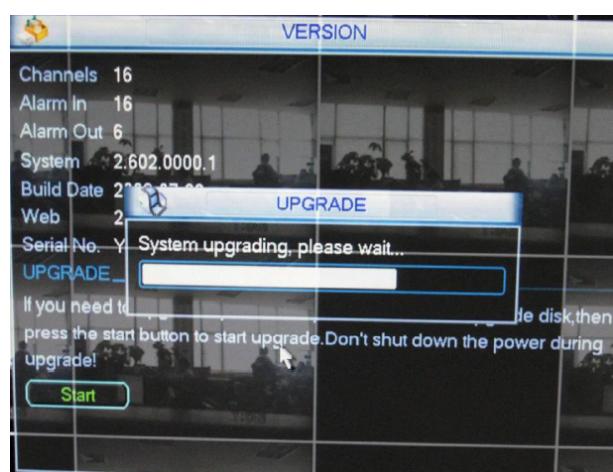
Here you can view some version information and upgrade the system.

- Channels
- Alarm in
- Alarm out
- System version:
- Build Date
- Web
- Serial No



#### USB Upgrade instructions

- 1) Rename the firmware file to "update.bin".  
e.g.: rename "General\_DVR0804LB-U\_Eng\_P\_V2.602.0000.1.20080723.bin" to "update.bin".
- 2) Insert the USB key into your computer. Copy the "update.bin" file into your USB flash drive.  
Warning : please put it in the outmost layer of the USB flash do not put it in any sub folder.
- 3) Insert the USB key into DVR.
- 4) Click on "Start" it will start USB upgrade.

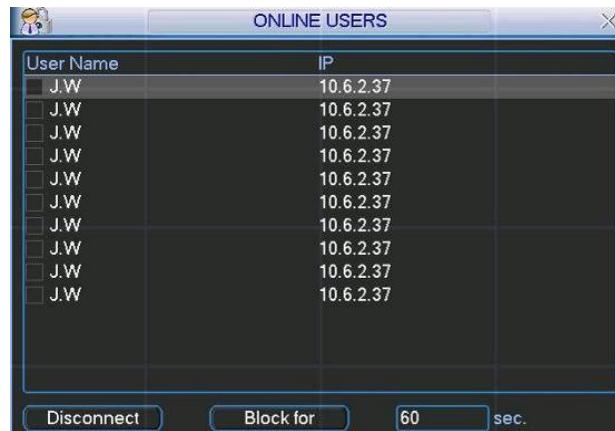


Don't shut down the power during the process.

#### 5.4.5 ONLINE USERS

Here you can manage online users.

You can disconnect one user or block one user if you have proper system right. Max disconnection setup is 65535 seconds



User Name	IP
J.W	10.6.2.37

#### 5.5 Setting

MAIN MENU -> SETTING interface is shown below.



### 5.5.1 General

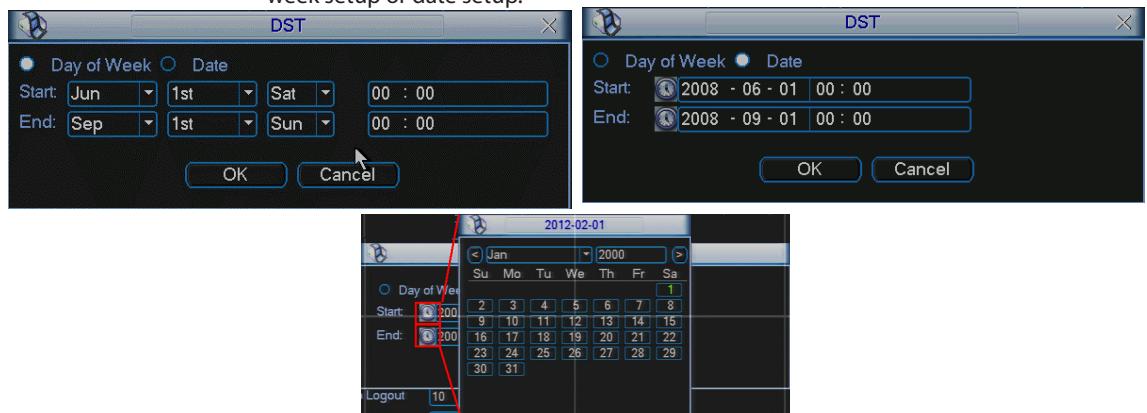


1 - System time: Here is for you to set system time

2 - Date format: There are three types: YYYY-MM-DD; MM-DD-YYYY or DD-MM-YYYY.

3 - Date separator: There are three denotations to separate date: dot, beeline and solidus.

4 - DST: (Daylight saving time) Here you can set DST time and date. Please enable DST function and then click on the "Set" button. You can see an interface is shown below. Here you can set start time and end time by setting corresponding week setup or date setup.



5 - Time format: There are two types: 24-hour mode or 12-hour mode.

6 - Language: System supports various languages.

7 - HDD full: Here you can select working mode when the hard disk is full. There are two options: "Stop Record" or "Overwrite". If current working HDD is overwritten or the current HDD is full while the next HDD is no empty, the system stops recording. If the current HDD is full and the next HDD is empty, the system overwrites the previous files.

8 - Pack duration: You can specify the record duration. The value ranges from 60 to 120 minutes. Default value is 60 minutes.

9 - DVR No: When you are using one remote control to control several DVRs, you can give a number to each DVR for your management. Use the "Add" button on the remote control

10 - Video standard: PAL.

11 - Auto logout: You can set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.

12 - Device ID: You can give a name to NVR.

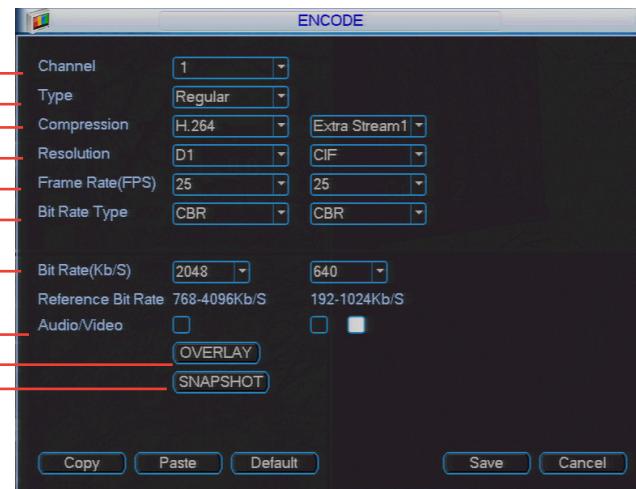
13 - Startup Wizard: Enable / Disable Startup Wizard .

**Nota:** Since system time is very important, do not modify time casually unless there is a must! Before the time modification, please stop record operation first!

After completing all the setups click on the "Save" button, system goes back to the previous menu.

### 5.5.2 Encode

ENCODE setting includes the following items.



1 - Channel: Select the channel you want.

2 - Type: Select the recording mode associated with the current setting

3 - Compression: System only supports H.264.

4 - Resolution: System supports various resolutions, you can select from the dropdown list. The main stream supports D1 / HD1 / BCIF / CIF / QCIF and the extra stream supports CIF / QCIF.

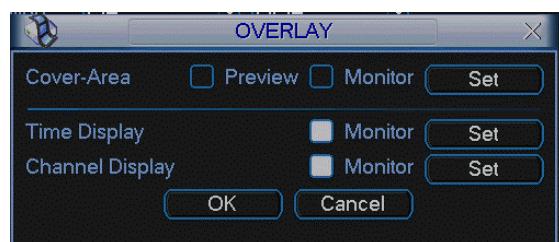
5 - Frame rate: It ranges from 1f / s to 30f / s in PAL mode.

6 - Bit rate type: System supports two types: CBR and VBR. In VBR mode, you can set video quality. There are six levels ranging from 1 to 6. The sixth level has the highest image quality.

7 - Bit Rate (Kb / s): Is used when the records are downloaded on the network.

8 - Video / audio: You can enable or disable the audio of the main steam and the video / audio of the extra Stream.

9 - Overlay: Click on the "Overlay" button, you can see the interface below.

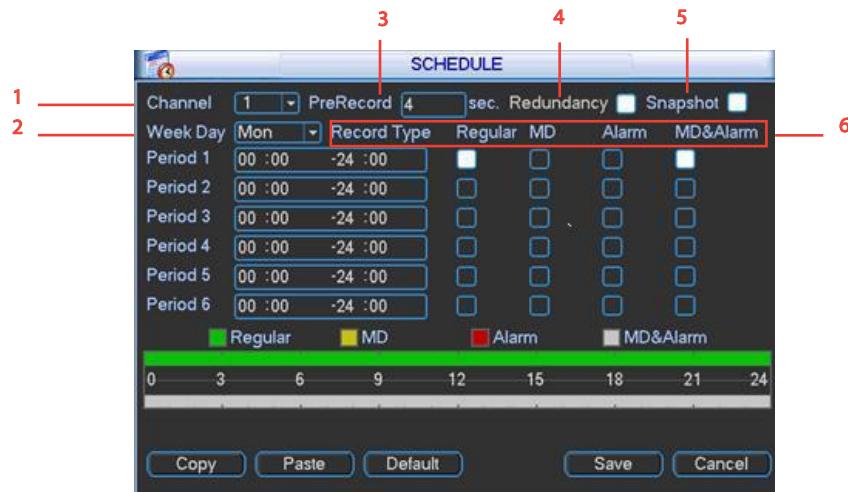


- Cover area (Privacy mask): You can set privacy mask section. You can drag your mouse to set proper section size. In one channel video, system max supports 4 zones in one channel.
- Preview / monitor: privacy mask has two types. Preview and Monitor. Preview means the privacy mask zone cannot be viewed by user when system is in live preview mode. Monitor means the privacy mask zone cannot be viewed by the user when system is in record mode.
- Time Display: You can select system displays time or not when you playback. Please click on "Set" button and then drag the title to the corresponding position in the screen.
- Channel Display: You can select system displays channel number or not when you playback. Please click on "Set" and then drag the title to the corresponding position in the screen.

10 -Snapshot: Please refer to the "Auxiliary Functions" chapter.

### 5.5.3 Schedule menu

After system booted up, it is in default 24-hour regular mode.  
 You can set record type and time in the MAIN MENU -> SETTING -> SCHEDULE,  
 See below.



1 - Channel: select the channel number first. You can select "all" if you want to set for the whole channels.

2 - Week day: there are eight options: ranges from Saturday to Sunday and all.

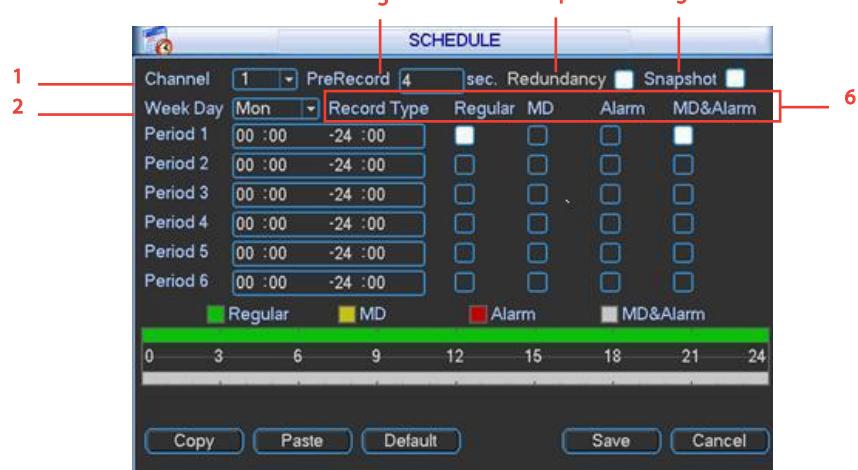
3 - Pre-record: system can pre-record the video before the event occurs.  
 The value ranges from 1 to 30 seconds depending on the bit stream.

4 - Redundancy: system supports redundancy backup function. It allows you backup recorded file in two disks.  
 You can highlight "Redundancy" box to activate this function.  
 Before enable this function, set at least one HDD as redundant in MAIN MENU -> ADVANCED -> HDD MANAGE. Refer to HDD manage chapter for more detailed information.

5 - Snapshot: you can enable this function to take a snapshot when an alarm occurs.  
 For setting, refer to "auxiliary functions" chapter.

6 - Record types: there are four types: Regular, Motion Detection (MD), Alarm and MD & alarm.  
 At the bottom of the menu, there are color bars for your reference.  
 Green color stands for regular recording, yellow color stands for motion detection and red color stands for alarm recording.  
 The white means the MD and Alarm record is setting.  
 Once you have set to record when the MD and alarm occurs, system won't record if only motion detect occurs or if only the alarm occurs.

Highlight the box  to select the corresponding function. After completing all the setups click on "Save" button, the system goes back to the previous menu.



#### Quick Setup : Copy and paste

This function allows you to copy one channel setting to another. After set a channel, you can click on "Paste" button, turn to another channel and then click on the "Copy" button.

The schedule and the setting are the same for both channels.

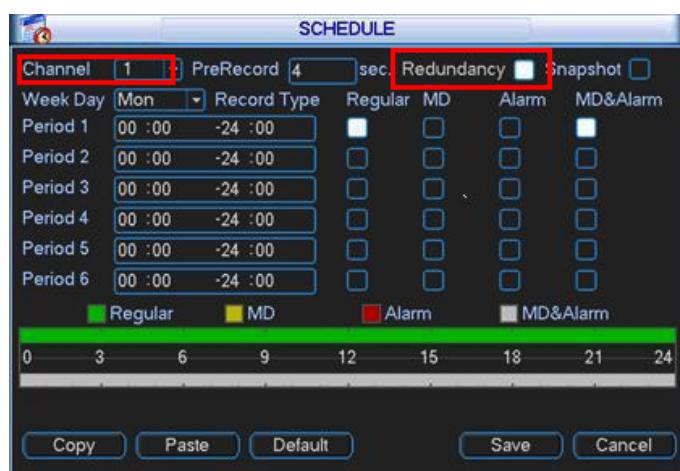
You can set for one channel and then click on "Save" button or you can set for "All" channels and then click on the "Save" button to memorize all the settings.

#### Redundancy (for DVR with several HDD)

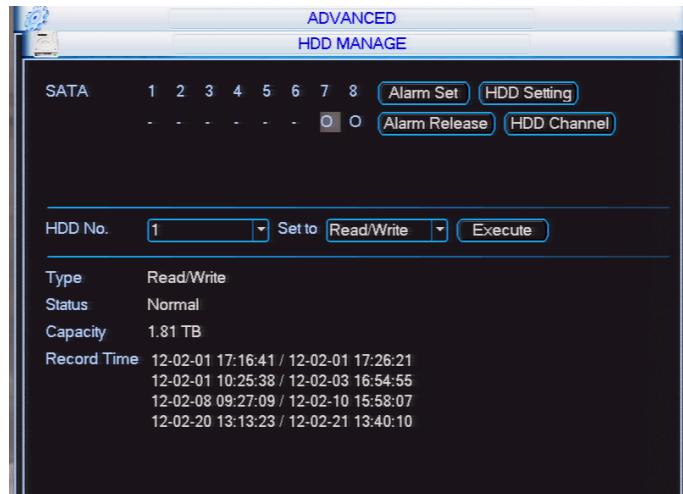
Redundancy function allows you to memorize record files in several disks. If file damage occurred in one disk, there is a spare one in the other disk. You can use this function to maintain data reliability and safety.

#### Redundancy settings

1- In the MAIN MENU -> SETTING -> SCHEDULE, you can highlight "Redundancy" box to enable this function.



2- In the MAIN MENU -> ADVANCED -> HDD MANAGE, you can set one or more disk(s) as redundant. You can select from the drop down list.

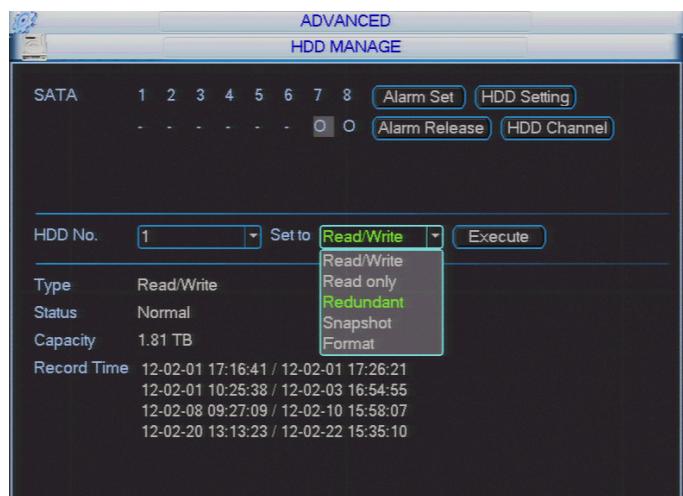


**Note:** only read / write disk or read-only disk can backup file and support file search function, so you need to set at least one read-write disk otherwise you cannot record video.

#### About redundancy setup:

- If current channel is not recording, current setup gets activated when the channel begin recording the next time.
- If current channel is recording now, current setup will get activated right away, the current file will be packet and form a file, then system begins recording as you have just set.

After all the setups, click on the "Save" button, system goes back to the previous menu.



#### Playback or search in the redundant disk.

You have two ways to playback or search record in the redundant disk.

- Set redundant disk(s) as read-only disk or read-write disk (MAIN MENU -> ADVANCED -> HDD MANAGE). System needs to reboot to get setup activated. Now you can search or playback file in redundant disk.
- Dismantle the disk and play it in another PC.

#### 5.5.4 RS232

RS232 interface is shown below. There are five items. See below



1 - Function: You can select various devices.  
2 - Baud rate: Select the proper baud rate.  
3 - Data bit: You can select proper data bit. The value ranges from 5 to 8.  
4 - Stop bit: There are two values: 1 / 2.  
5 - Parity: There are five choices: none / odd / even / space / mark.

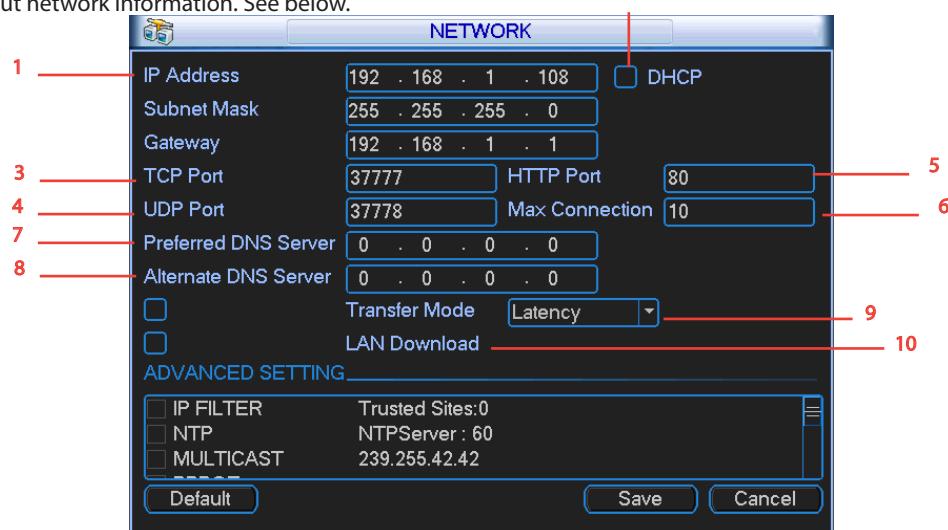
System default setup is:

- Function: Console
- Baud rate: 115200
- Data bit: 8
- Stop bit: 1
- Parity: None

After completing all the setups please click on the "Save" button, system goes back to the previous menu.

#### 5.5.5 NETWORK

You can input network information. See below.



1 - IP address, Subnet Mask

and the Gateway: here you can input the IP address.

2 - DHCP: it is to auto search IP. When enable DHCP function, you cannot modify IP / Subnet mask / Gateway. These values are from DHCP function.

If you have not enabled DHCP function, IP / Subnet mask / Gateway display as zero.

You need to disable DHCP function to view current IP information.

Besides, when PPPoE is operating, you cannot modify IP / Subnet mask / Gateway.

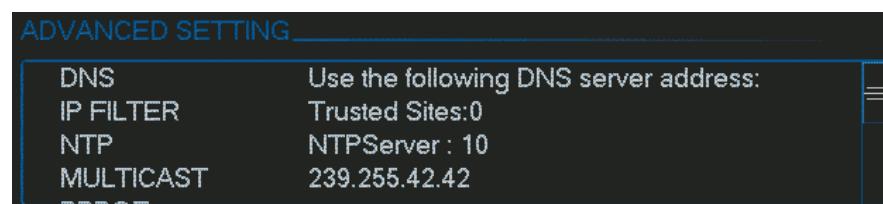
3 - TCP port: Default value is 37777.

4 - UDP port: Default value is 37778.  
 5 - HTTP port: Default value is 80.  
 6 - Max connection: The system supports maximal 10 users. 0 means there is no connection limit.  
 7 - Preferred DNS server: DNS server IP address.  
 8 - Alternate DNS server: DNS server alternate address.  
 9 - Transfer mode: Here you can select the priority between fluency / video qualities.  
 10 - LAN download: The system can process the downloaded data first if you enable this function.  
 The download speed is 1.5X or 2.0X of the normal speed.

After completing all the setups please click on the "Save" button, the system goes back to the previous menu.

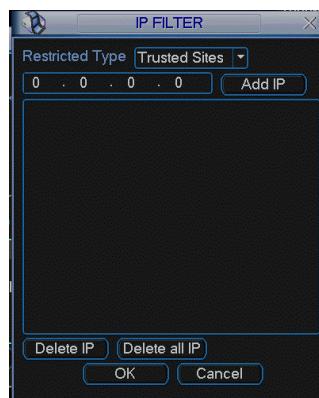
### ADVANCED SETTING

Advanced setting interface is shown below. Double click current item to go to setup interface.



#### 1) IP Filter

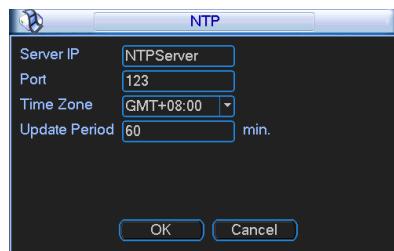
IP filter interface is shown below. You can add IP in the following list. The list supports max 64 IP addresses. Please **Note** after you enabled this function, only the IP listed below can access current DVR. If you disable this function, all IP addresses can access current DVR.



---

## 2) NTP Setup

You need to install SNTP server (Such as Absolute Time Server) in your PC first.  
In Windows XP OS, you can use command "net start w32time" to boot up NTP service.



- Server IP: input the NTP server address or name.
- Port: the DVR supports TCP transmission only. Port default value is 123.
- Time zone: select your corresponding time zone here.
- Update Period: minimum value is 1. Max value is 65535. (Unit: minute)

Time zone setup:

City / Region Name	Time Zone
London	GMT+0
Berlin	GMT+1
Cairo	GMT+2
Moscow	GMT+3
New Deli	GMT+5
Bangkok	GMT+7
Beijing (Hong Kong)	GMT+8
Tokyo	GMT+9
Sydney	GMT+10
Hawaii	GMT-10
Alaska	GMT-9
Pacific Time(P.T)	GMT-8
American Mountain Time(M.T)	GMT-7
American Central Time(C.T)	GMT-6
American Eastern Time(E.T)	GMT-5
Atlantic Time	GMT-4
Brazil	GMT-3
Middle Atlantic Time	GMT-2

## 3) Multicast Setup

MULTICAST setup interface is shown below.



You can set a multiple cast group. Refer to the following sheet for detailed information.

- IP multiple to cast group address
  - 224.0.0.0-239.255.255.255
  - “D” address space
- The higher four-bit of the first byte="1110"
- Reserved local multiple cast group address
  - 224.0.0.0-224.0.0.255
  - TTL=1 When sending out telegraph
  - For example
 

224.0.0.1	All systems in the sub-net
224.0.0.2	All routers in the sub-net
224.0.0.4	DVMRP router
224.0.0.5	OSPF router
224.0.0.13	PIMv2 router
- Administrative scoped addressees
  - 239.0.0.0-239.255.255.255
  - Private address space
    - Like the single broadcast address of RFC1918
    - Cannot be used in Internet transmission
    - Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, you can use other addresses. For example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

After you logged in the Web, the Web can automatically get multiple cast address and add it to the multiple cast groups. You can enable real-time monitor function to view the view.

#### 4) PPPoE

PPPoE interface is shown below

Input “PPPoE name” and “PPPoE password” you get from your ISP (Internet service provider).

Click on the “Save” button, you need to restart to activate your configuration.

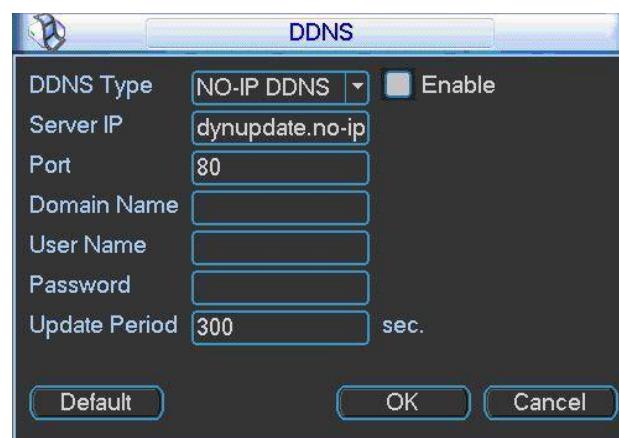
After rebooting, the DVR will connect to internet automatically.

The IP in the PPPoE is the DVR dynamic value. You can access this IP to visit the unit.



#### 5) DDNS Setup

DDNS setup interface is shown as below



You need a PC with fixed IP in the internet and there is the DDNS software running in this PC.

In network DDNS, please select DDNS type and highlight enable item. Then input your PPPoE name you get from your ISP and server IP (PC with DDNS). Click on “Save” button and then reboot system.

Click on the “Save” button, system prompts for rebooting to get all setup activated.

After rebooting, open IE and input as below:

http://(DDNS server IP)/(virtual directory name)/webtest.htm

e.g.: http://10.6.2.85/DVR\_DDNS/webtest.htm.)

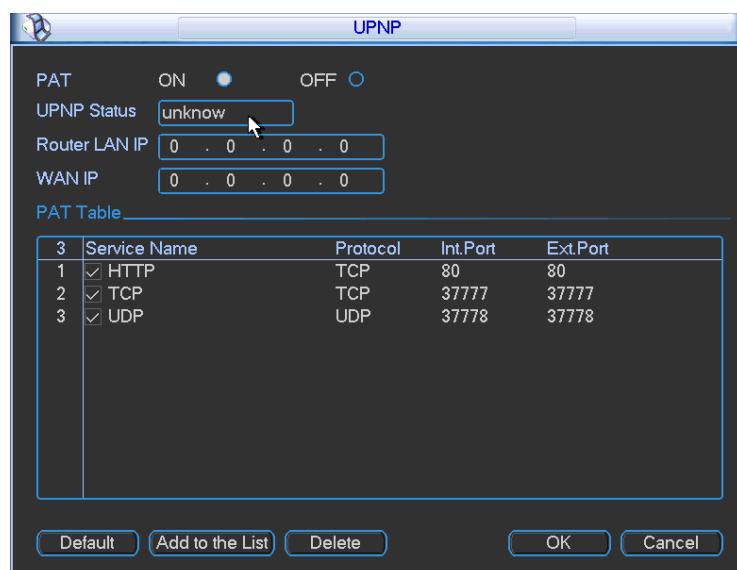
Now you can open DDNSServer web search page.

Please **Note** DDNS includes: CN99 DDNS - NO-IP DDNS - Private DDNS - and DynDns DDNS.

All the DDNS can be valid at the same time.

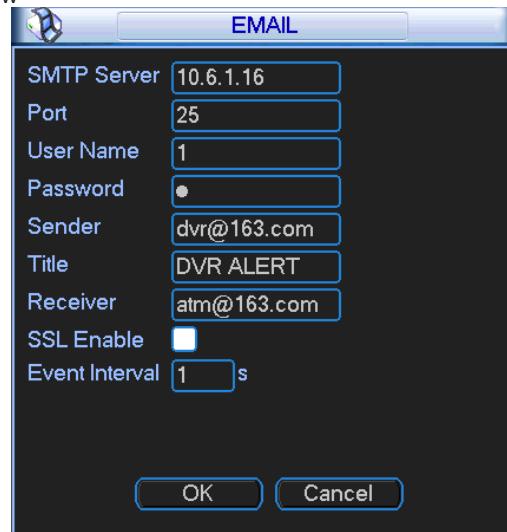
## 6) UPnP

The UPnP interface is represented below. This activates the UPnP protocol in the recorder which allows it to communicate with and be recognised on a PC or by a router which also has the UPnP protocol activated. In the case of a router supporting this protocol, it allows port forwarding to be opened automatically.



## 7) Email

EMAIL interface is shown below



Input sender mailbox SMTP, server IP address, port, user name, password and sender mailbox, interval. The title content supports maximum 32 alphanumeric characters.

System max supports three addresses and SSL encryption mailbox.

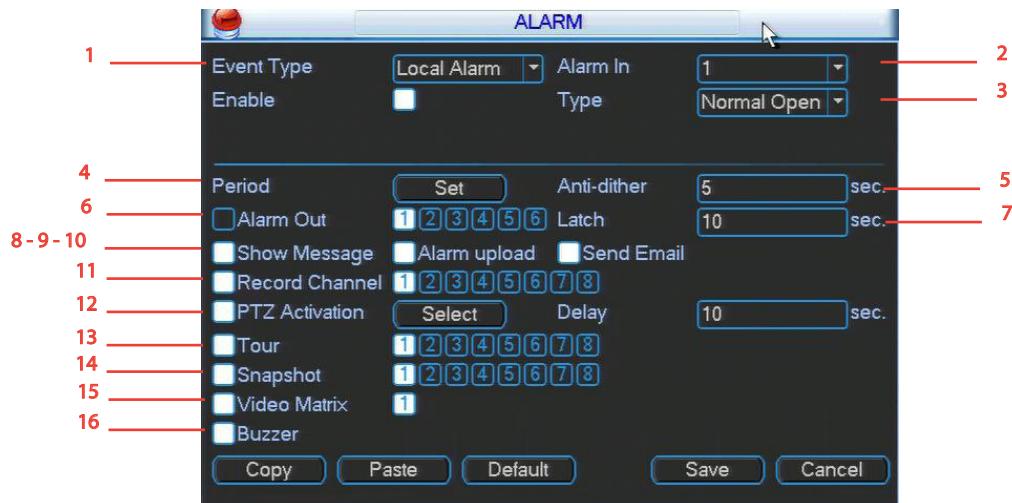
The interval value ranges from 0 to 3600 second. 0 means there is no interval. Once you input interval here, when alarm (motion detection or abnormal event, etc) activates the email, system will not send out the email immediately when an alarm occurred, system just sends out the email regularly according to the interval you set here. This function is very useful when there is a lot of alarms to be processed which may result in the mail server overload.

## 8) FTP

Refer to auxiliary functions

### 5.5.6 Alarm Setup and Alarm Activation

Before operation, make sure you have properly connected alarm devices such as buzzer. In the MAIN MENU -> SETTING -> ALARM you can see alarm setup interface. See below:

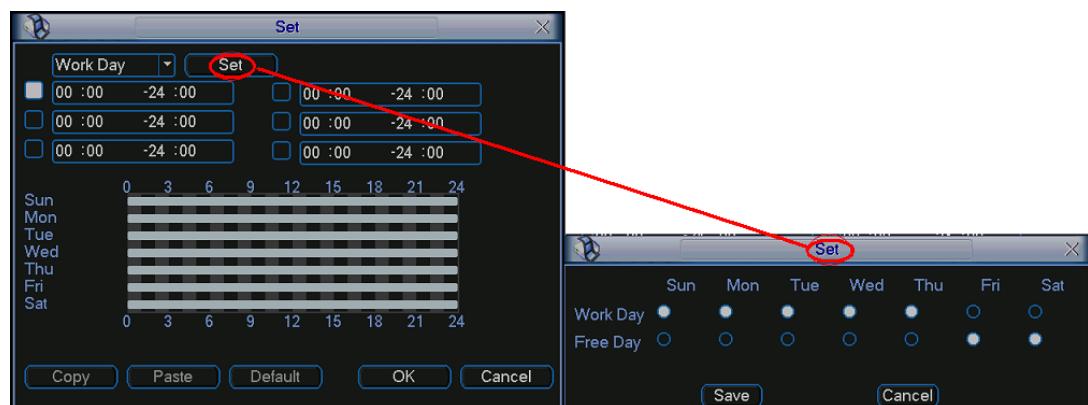


1- Event type: There are two types. One is local input and the other is network input.  
Only Local Alarm is available.

2 - Alarm in: You can select alarm number.

3 - Type: Normal Open or Normal Close.

4 - Period: if you select "Work Day" or "Free Day" in the list you can set for business day and non-business day. Click on the "Set" button.



5 - Anti-dither: System only memorizes one event during the anti-dither period.  
The value ranges is from 1 to 600 seconds.

6 - Alarm output: When alarm occurred, system enables peripheral alarm devices.

7 - Latch: You can set delay duration, system automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.  
The value range is from 10 to 300 seconds.

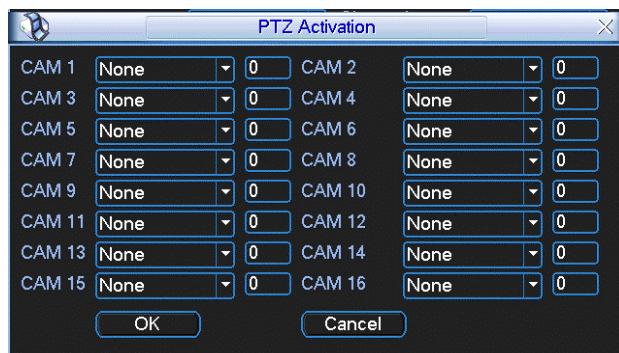
8 - Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.

9 - Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function.

10 - Send email: System can send out email to alert you when alarm occurs.  
You have to configure SMTP and email setting (SETTING->NETWORK->Advanced Setting EMAIL).

11 - Record Channel: You can select proper channel to record alarm video (Multiple choices).  
At the same time you need to set MD in schedule interface (MAIN MENU -> SETTING -> SCHEDULE) and select schedule record in record interface (MAIN MENU -> ADVANCED -> RECORD).

12 - PTZ activation: The system can go to defined preset when there is an alarm.  
Click on "Select" button. Input "Preset" and the number preset.



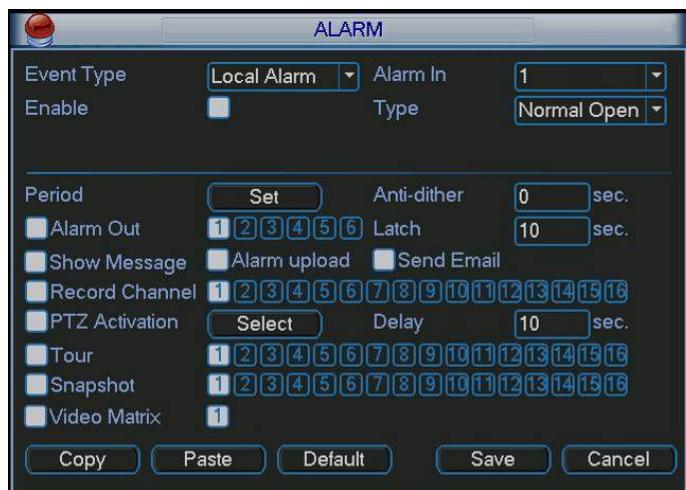
13 - Tour: You can enable tour function in one window when alarm occurs.  
Go to MAIN MENU -> SETTING -> DISPLAY to set the tour interval.

14 - Snapshot: You can enable this function to snapshot image when alarm occurs (see the "auxiliary function" chapter).

15 - Video matrix: Once you enable this function, the selected alarm channel will be displayed in the spot video channel.

16 - Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

Highlight box  to select the corresponding function. After setting all the setups please click on the "Save" button, system goes back to the previous menu.



### 5.5.7 Detect

In the MAIN MENU -> SETTING -> DETECT, you can see motion detection interface. You can see in the dropdown list three detection types:

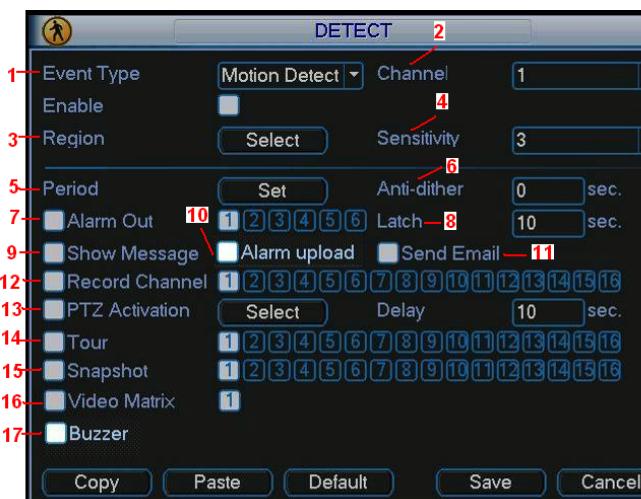
- Motion Detect,
- Video Loss,
- Camera Masking.

#### 1) Motion Detection

Analysis the video, system enable motion detection alarm when it detects the motion signal reached the specified sensitivity.

DETECT menu is shown below.

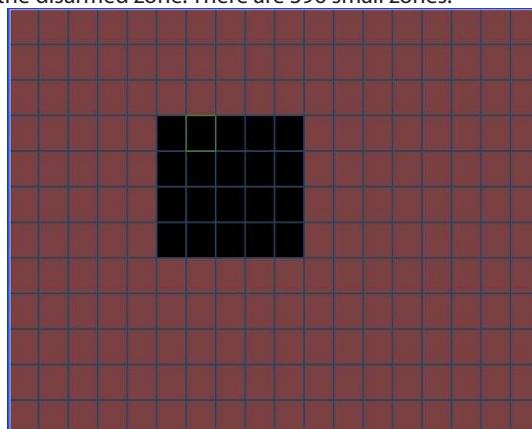
1 - Event type: From the dropdown list you can select Motion Detect.



2 - Channel: Select the channel to activate recording function when an alarm occurred.

Please make sure you have set "MD" record in schedule interface (MAIN MENU -> SETTING -> SCHEDULE) and set "schedule" record in record interface (MAIN MENU -> ADVANCED -> RECORD).

3 - Region: Click on "Select" button, a pink screen appears, pink zone is the motion detection zone. Black zone is the disarmed zone. There are 396 small zones.

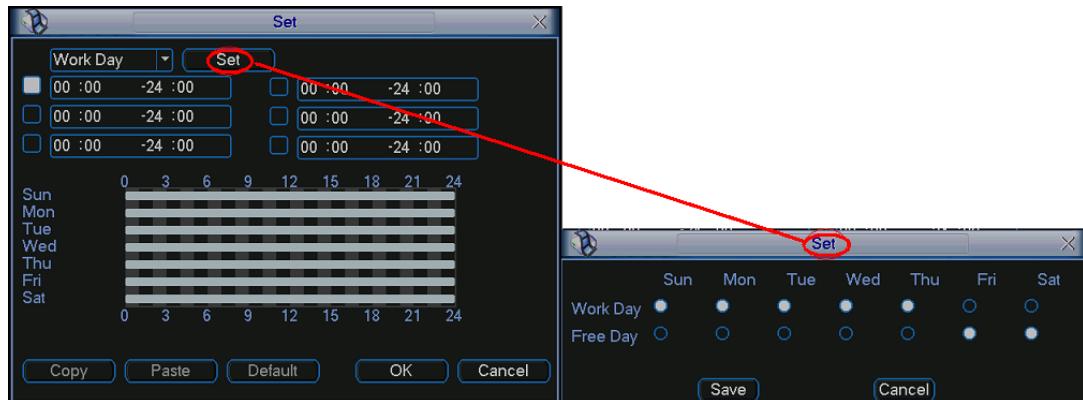


- With the mouse: you can deselect the motion detection area.

- With the front panel: here you can set motion detection zone. The green zone is current cursor position. Pink zone is the motion detection zone. Black zone is the disarmed zone. You can click on the "Fn" button to switch between the arm mode and disarm mode. In arm mode, you can click on the direction buttons to move the green rectangle to set the motion detection zone. After you completed the setup, please click on "ENTER" button to exit current setup. Do remember click on the "Save" button to save current setup. If you click on "ESC" button to exit the region setup interface system will not save your zone setup.

4 - Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.

5 - Period: If you select "Work Day" or "Free Day" in the list you can set for business day and non-business day. Click on the "Set" button.



6 - Anti-dither: System only memorizes one event during the anti-dither period. The value ranges is from 0 to 600 seconds.

7 - Alarm output: When alarm occurred, system enables peripheral alarm devices.

8 - Latch: After higger alarm, alarm output will change state during the time set. The value range is from 1 to 300 seconds.

9 - Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.

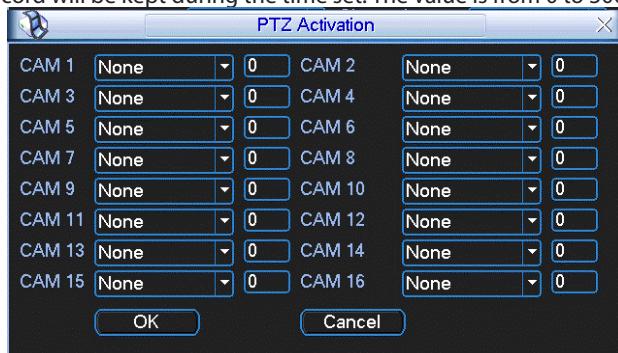
10 - Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function.

11 - Send email: System can send out email to alert you when alarm occurs. You have to configure SMTP and email setting (SETTING -> NETWORK -> Advanced Setting EMAIL).

12 - Record Channel: You can select proper channel to record alarm video (Multiple choices). At the same time you need to set MD in schedule interface (MAIN MENU -> SETTING -> SCHEUDLE) and select schedule record in record interface (MAIN MENU -> ADVANCED -> RECORD).

13 - PTZ activation: The system can go to defined preset when there is an alarm. Click on "Select" button. Input "Preset" and the number preset.

Delay: after trigger alarm, record will be kept during the time set. The value is from 0 to 300 seconds.



14 - Tour: You can enable tour function in one window when alarm occurs. Go to MAIN MENU -> SETTING -> DISPLAY to set the tour interval.

15 - Snapshot: You can enable this function to snapshot image when alarm occurs (see the "auxiliary function" chapter).

16 - Video matrix: Once you enable this function, the selected alarm channel will be displayed in the spot video channel.

17 - Buzzer: highlight the icon to enable this function. The buzzer beeps when alarm occurs.

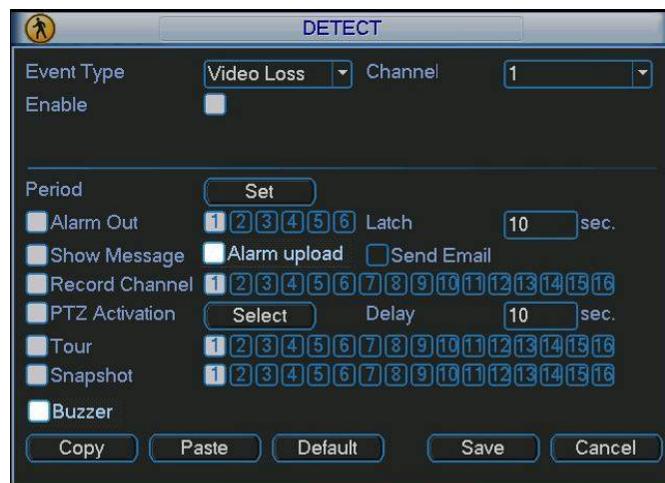
Please highlight icon to select the corresponding function. After all the setups please click on the "Save" button, system goes back to the previous menu.

**Notes:**

- In motion detection mode, you cannot use copy / paste to set channel setup since the video in each channel may not be the same.
- To activate motion detection go to MAIN MENU -> SETTING -> SCHEDULE and select "MD" or "MD Alarm" for "Channel" and "Period".

**2) Video Loss**

In Detect menu, select "Video Loss" from the type list. You can see the interface below. This function allows you to be informed when video loss phenomenon occurred. You can enable alarm output channel and then enable show message function.

**Tips:**

You can enable preset activation when video loss occurs.

Refer to "Motion Detection" functions for detailed information.

**3) Camera Masking**

When someone viciously masks the lens, or the output video is in one-color due to the environments light change, the system can alert you to guarantee video continuity.

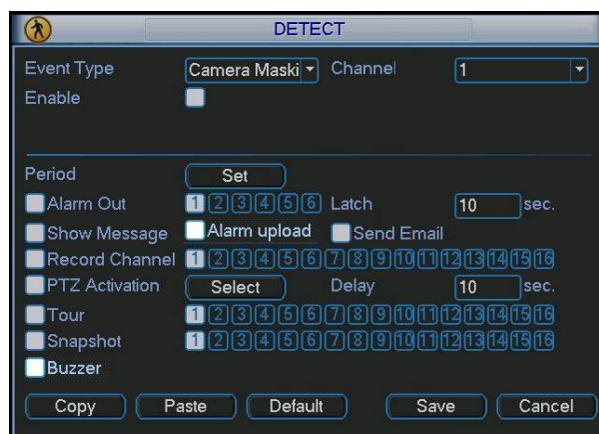
**Tips:**

You can enable preset activation when camera masking occurs.

Please refer to "motion detection" function for detailed information.

**Note:**

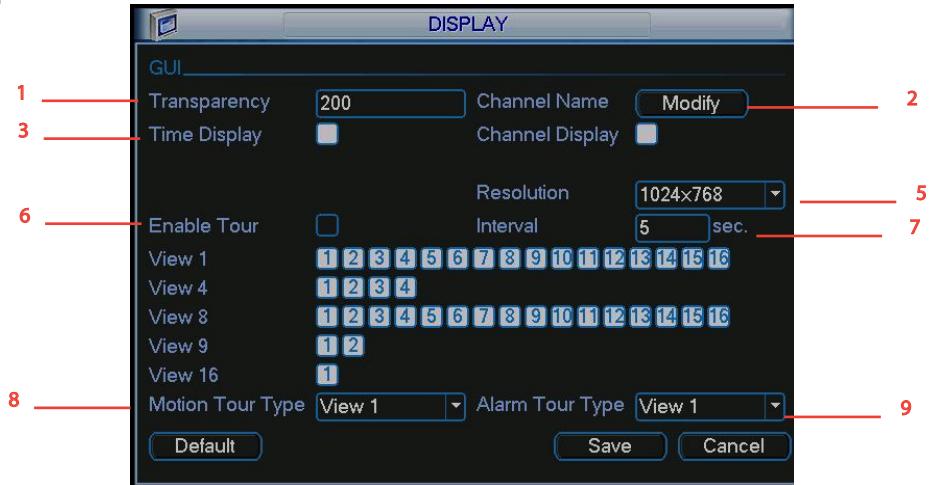
In Detect interface, copy / paste function is only valid for the same type, which means you cannot copy a channel setup in video loss mode to camera masking mode.

**5.5.8 Pan / Tilt / Zoom**

Refer PTZ Setup to chapter 4.8

### 5.5.9 Display

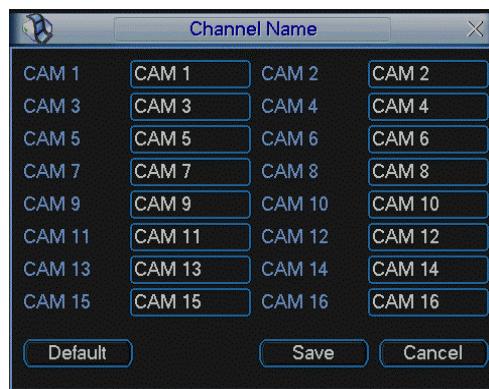
DISPLAY setup interface is shown below.



1 - Transparency: You can adjust the transparency of the menu display.

The value ranges from 128 to 255.

2 - Channel name: You can modify the channel name. All your modifications are only applied to local end. System max support 25 characters.



3 - Time display: You can select to display time or not when system is playback.

4 - Channel display: You can select to channel name or not when system is playback.

5 - Resolution: Four options are available: 1920x1024, 1280x1024 (default), 1280x720, 1024x768. Make sure your monitor supports the resolution before change it.

6 - Enable Tour: Activate tour function.

In tour mode, you can see the following interface.

On the right corner, right click on it with the mouse or click on the "Shift" button (front panel or remote control), you can stop the tour  or start it again .

7 - Interval: System supports 1 / 4 / 8 / 9 / 16-window tour. Input proper interval value here. The value ranges from 5-120 seconds.



8 - Motion tour type: When the system detects a motion the defined and activated tour in Detect menu begins.

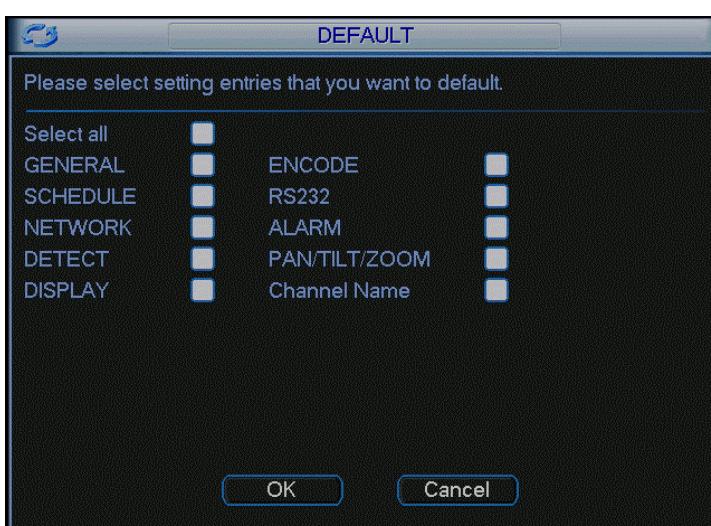
9 - Alarm tour type: When the system detects an alarm the defined and activated tour in Alarm menu begins

Please highlight icon  to select the corresponding function.

After completing all the settings, click on the "Save" button, the system goes back to the previous menu.

### 5.5.10 Default

Click on the "DEFAULT" icon, system pops up a dialogue box. You can highlight  to restore default factory setup.



You can "Select all" settings or select menu by menu, General, Encode, Schedule, RS232, Network, Alarm, Detect, Pan / tilt / zoom, Display and Channel name.

After all the setups please click on the "Save" button, system goes back to the previous menu.

#### Warning!

System menu color, language, time display mode, video format, IP address, user account will not maintain previous setup after default operation!

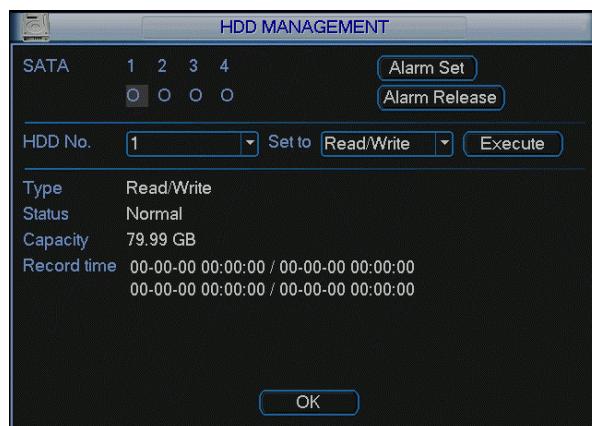
## 5.6 Advanced

Click on the ADVANCED icon in the main window, the interface is shown below. There are ten function keys: HDD MANAGE, ABNORMALITY, ALARM OUTPUT, RECORD, ACCOUNT, AUTO MAINTAIN, TV ADJUST, VIDEO MATRIX, TEXT OVERLAY and CONFIG BACKUP.



### 5.6.1 HDD manage

You can see and implement hard disk management.



The recorder offers the option of creating hard disk groups using the "HDD Setting" key and assigning each channel to a group using the "HDD Channel" key.

The "Alarm Set" key opens the "Abnormality" menu.

You can see the current HDD type, the status, the capacity and the record time.

The operation includes the format / restore from error and change the HDD property. When HDD is working properly, system is shown as "O". When HDD error occurred, system is shown as "X".

You can select HDD mode from the dropdown list such as read-only or you can erase all the data on the HDD. The system needs reboot to get all the modifications activated.

#### Important

The read-write HDD is to storage recorded files.

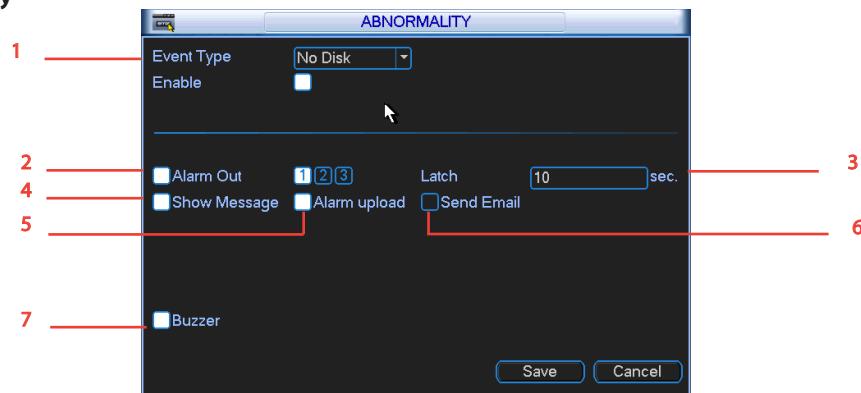
You can search the records in the read-only HDD and read-write HDD.

If you want to read recorded files in redundant HDD, you have to set the redundant disk as read-write or as read only (see the SCHEDULE chapter).

Click on the "Alarm Set" button, the interface is shown below (This interface is the ABNORMALITY setup). Please refer to the ABNORMALITY chapter (below) for more detailed information.

Please highlight icon  to select the corresponding function.

### 5.6.2 Abnormality



The abnormality interface is shown above. You can associate an event type and one or several alarm.

1 - Event type: There are several options for you such as "Disk error", "No disk", "No space", "IP conflict", "Net disconnection", "MAC Conflicted".

2 - Alarm output: Please select alarm activation output port (multiple choices).

3 - Latch: Here you can set corresponding delaying time. The value ranges from 10s-300s. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.

4 - Show message: System can pop up the message in the local screen to alert you when alarm occurs.

5 - Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function.

6 - Send email: System can send out email to alert you when alarm occurs.

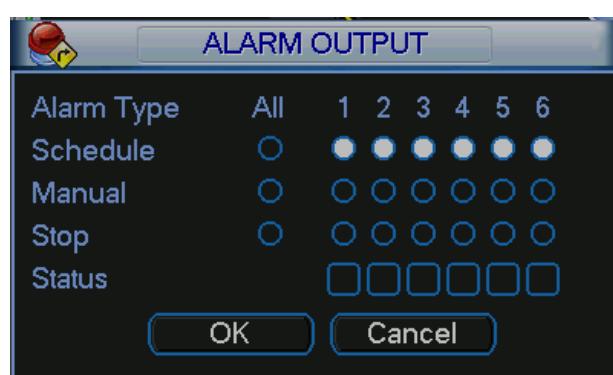
7 - Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

### 5.6.3 Alarm Output

You can set proper alarm output.

Please highlight icon to select the corresponding alarm output.

After all the setups click on "OK", system goes back to the previous menu.

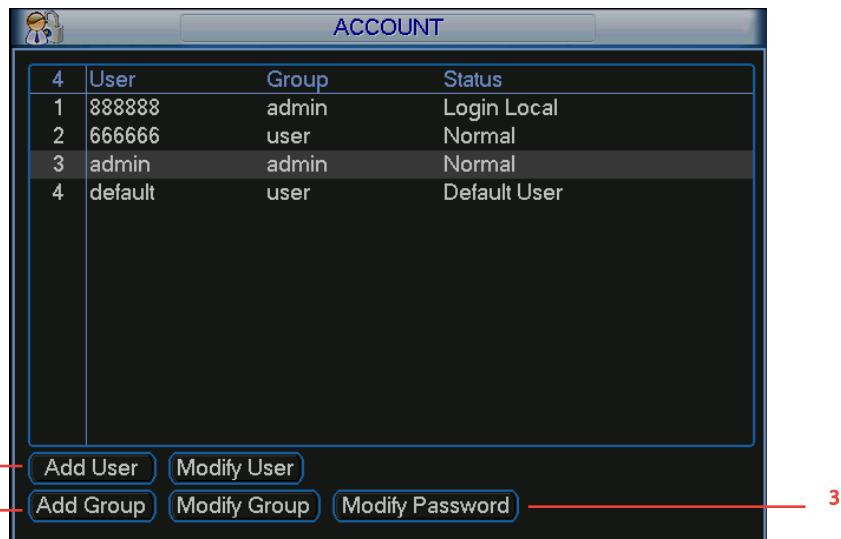


### 5.6.4 Record

Please refer to "Manual Record" chapter 4.5.

### 5.6.5 Account

You can implement the account management.

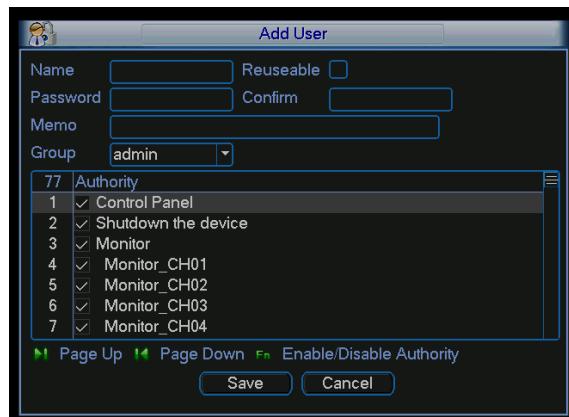


#### 1 - Add / Modify User

Click on "Add user" button, the interface is shown below.

Input the user name and the password select the group it belongs to from the dropdown list. Then you can check the corresponding rights for current user. For convenient user management, usually we recommend the general user right is lower than the admin account.

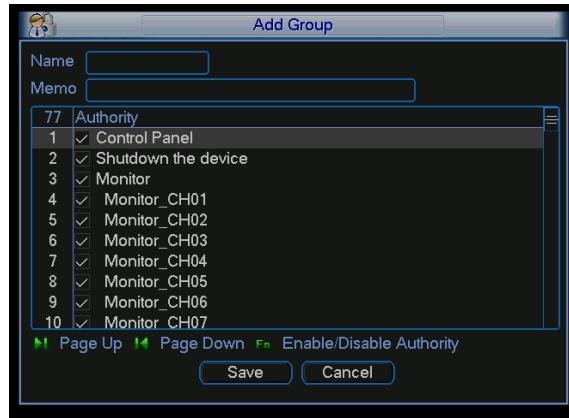
The "Modify User" interface is similar to the "Add User" interface, select the account user you want modify from the dropdown list.



#### 2 - Add / Modify Group

Click on "Add Group" button, the interface is shown below.

Here you can input group name and then input some memo information if necessary. There are total 60 rights such as control panel, shutdown, real-time monitor, playback, record, record file backup, PTZ, user account, system information view, alarm input / output setup, system setup, log view, clear log, upgrade system, control device and etc. The "Modify Group" interface is similar to the "Add Group" interface select the account group you want to modify from the dropdown list.



### 3 - Modify Password

Click on "Modify Password" button, the interface is shown below.

Select the account from the dropdown list, input the old password and then input the new password twice. Click the "Save" button to confirm current modification.

For the users of user account right, it can modify password of other users.

For the account management **Note**:



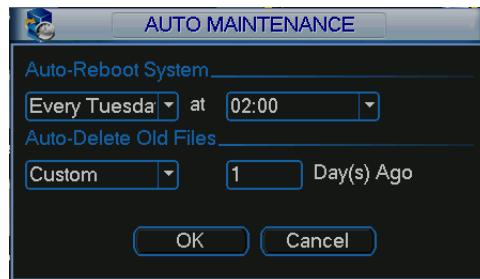
- For the user account name and the user group, the string max length is 6 characters. Space in front of or at the back of the string is invalid. A backspace can be in the middle of the name. The string includes the valid character, letter, number, underline, subtraction sign, and dot.
- System account adopts two-level management: group and user. No limit to group or user amount.
- For group or user management, there are two levels: admin and user.
- The user name and group name can consist of eight bytes. One name can only be used once.
- There are four default users:
  - admin / 888888 / 666666 and hidden user "default". Except user 666666, other users have administrator right.
  - Hidden user "default" is for system interior use only and cannot be deleted. When there is no login user, hidden user "default" automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
  - One user should belong to one group. User right cannot exceed group right.
  - About reusable function: this function allows multiple users use the same account to login.

After all the setups, click on the "Save" button, system goes back to the previous menu.

### 5.6.6 Auto Maintain

You can set auto-reboot time for the specified day from the dropdown list and you can auto-delete old files setup it means the record time.

After all the setups please click on the "Save" button, system goes back to the previous menu.



### 5.6.7 TV Adjust

Here, you can adjust TV output setup..

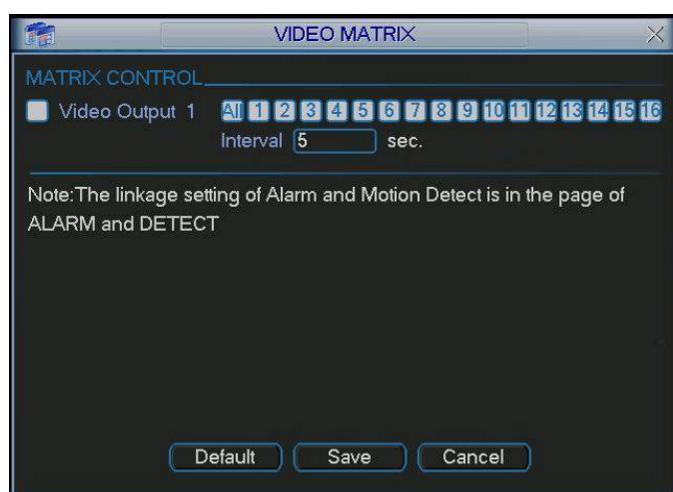
Please drag slide bar to adjust each item.

After all the setups please click on "OK" button, the system goes back to the previous menu.



### 5.6.8 Video Matrix

You can set matrix output (spot out) channel and its interval. You can link it with an alarm and motion detection.



### 5.6.9 Text Overlay

The Text overlay function is for financial areas. It includes Sniffer, information analysis and title overlay function. The Sniffer mode includes COM and network.

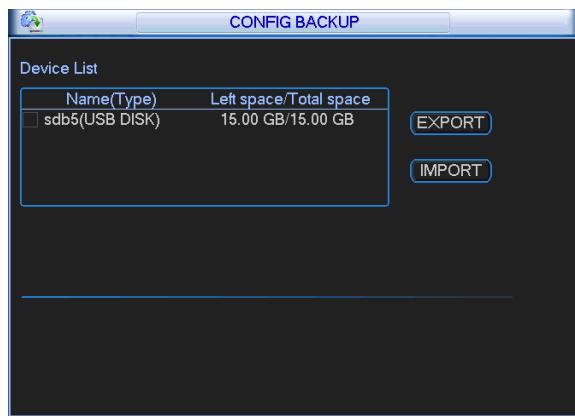
For the configuration see the Auxiliary Functions.

### 5.6.10 Config Backup

The configuration file backup interface is shown below.

This function allows you to copy current system configuration to other devices.

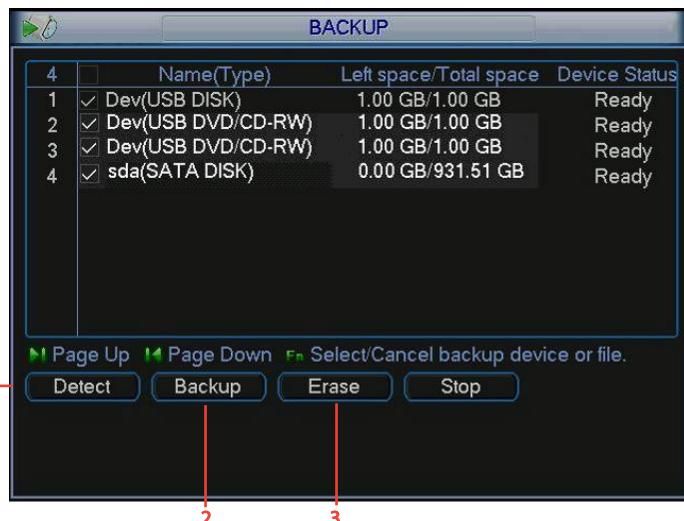
The "Export" button save the configuration file to a USB device and "Import" button copy the configuration file from the USB device.



### 5.7 Backup records or exportation

The DVR supports USB device backup and network download. Here we introduce USB backup and eSATA backup. You can refer to Chapter on Web Client Operation for network download backup operation.

In SEARCH menu you can export or backup the specific records or a part of a record you have seen (refer to SEARCH menu) and in MAIN MENU -> BACKUP you can backup the recorded files



1 - Detect a Device

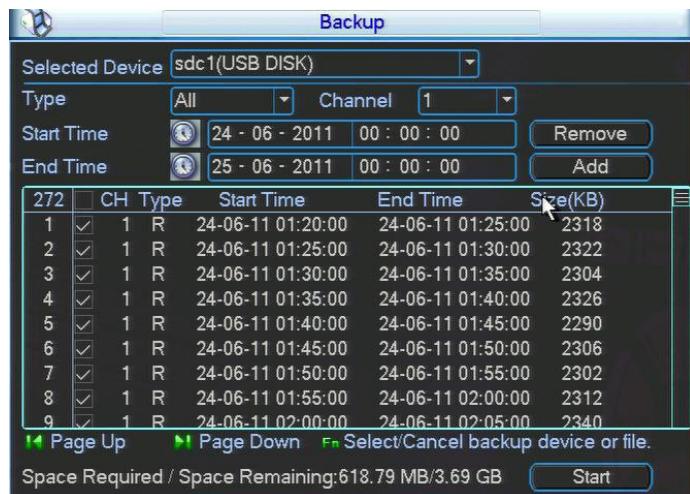
Click on the "Detect" button, you can see an interface below. You can see the devices information name and the total space and free space.

The device includes DVD / CD-RW, USB burner, flash disk, SD card, USB HDD and eSATA. Select only one device.

## 2 - "Backup" button

Select backup device and then select channel, file start time and end time.

Click on "Add" button, system begins to search. All matched files are listed below. System automatically calculates the needed and remained capacities.

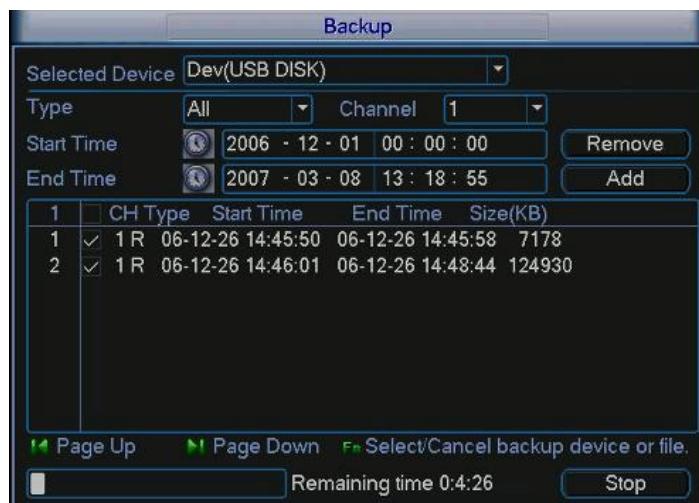


System only backups files with a ✓ before record name. You can use "Fn" button and Up / Down arrow on the remote control or on the front panel to select and deselect a record.

The "Remove" button cancels all the listed records.

Click on "Start" button the system begins to backup. The "Start" button backups all the selected files. You can see the remaining time and process bar at the left bottom.

When the system completes backup, you can see a dialogue box prompting successful backup. See below.



The file name format usually is: file index + channel number + type + time (Y + M + D + H + S). In the file name, the YDM format is the same as you set in general interface in MAIN MENU -> SETTING -> GENERAL. File extension name is .dav.

### Tips:

During backup process, you can use the "ESC" button on the front panel to exit current interface for other operation. The system will not terminate backup process.

### Note:

When you click on "Stop" button during the backup process, the stop function is activated immediately. For example, if there are ten files, when you click on "Stop" the system don't save all the files on the device.

## 3 - "Erase" Button

The Erase Button allows you to format the selected device.

---

## 5.8 Shutdown

There are two ways to logout

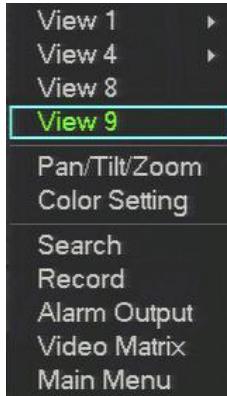
- One is from the menu option : in the “MAIN MENU”, select “SHUTDOWN” icon, system pops up a dialogue box and you can select:
  - Logout menu user: log out menu. You need to input password when you login the next time.
  - Shutdown: system shuts down and turns off power.
  - Restart system: system begins to reboot.
  - Switch user: you can use another account to log in.



- The other way is to press power button on the front panel for at least 3 seconds, system will stop all operation, then you can press the power button on the rear panel to turn off the DVR.

## 6. Auxiliary Menu

Surveillance mode, right click mouse. The interface is shown below:



### 6.1 View 1, 4, 9, 16

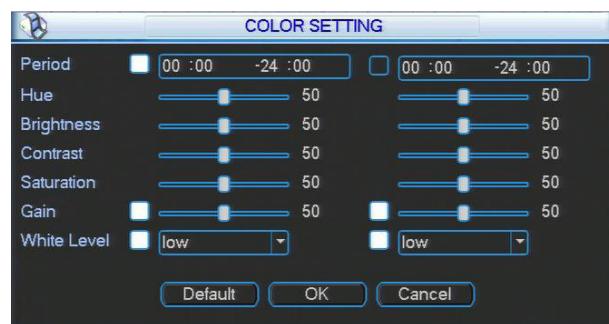
Refer to DISPLAY menu (MAIN MENU -> SETTING -> DISPLAY) chapter 5.5.9

### 6.2 Pan / Tilt / Zoom Menu

Refer to Pan / Tilt / Zoom chapter 5.5.8

### 6.3 Color Setting

You can set the camera color according to two defined periods like the day and the night.



### 6.4 Search

Refer to MAIN MENU -> SEARCH (chapter 4.7 Search & Playback)

### 6.5 Record

Refer to MAIN MENU -> ADVANCED -> RECORD (chapter 4.5 Manual Record)

### 6.6 Alarm Output

Refer to MAIN MENU -> ADVANCED -> ALARM OUTPUT (chapter 5.5.6 Alarm Output)

### 6.7 Video Matrix

Refer to MAIN MENU -> ADVANCED -> VIDEO MATRIX (chapter 5.6.8 VIDEO MATRIX)

### 6.8 Main Menu

Refer to MAIN MENU chapter 4.4.

---

## 7 Mobile install

You can find the firmwares for Mobile Phone Symbian, Blackberry and Android Windows Mobile on the CD.

### 7.1 Android mobile phone and iPhone 3G (8G)

This software has the following features:

- Use mobile phone to view real-time video.
- Support PTZ control operation.

#### 7.1.1 Software Installation for Android

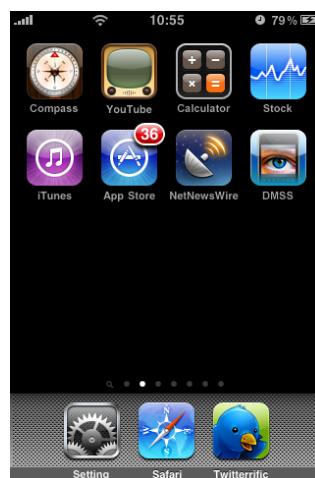
- Copy DMSS apk installation package to the Android Mobile Phone via the data cable.
- Find the DMSS apk in the specified folder. Click the DMSS application package to begin the installation.



#### 7.1.2 Software Installation for iPhone

Please follow the steps listed below to install the software.

- 1) Go to the App Store to install the software.



- 2) Search DMSS to find the software.

- 3) Click the DMSS software to begin the installation. The interface is shown as below after the installation. See below.

4) Using the application for iPhone and Android

Click on "DMSS" button, the initial interface is shown as below.



Please refer to the following tab for detailed information.

	PTZ up		PTZ right		Zoom in
	Focus +		Aperture +		Channel 1
	Channel 2		PTZ down		PTZ left
	Zoom out		Focus -		Aperture -
	Channel 3		Channel 4		Play / Pause
	Full-screen / normal screen		Snapshot		Setting
	About		Next channel group		

**Important**

The snapshot image is saved in default iPhone image folder with the not free version.

5) If it is your first time to use the software, or you want to modify current setup, please click button to modify the setup. See below.

- Address: DVR IP in WAN or dynamic domain.
- Port: DVR port value.
- User ID: The user name you login the Internet Explorer.
- Password: The password you login the Internet Explorer.



6) Click the  icon to switch between the normal screen and then full screen.

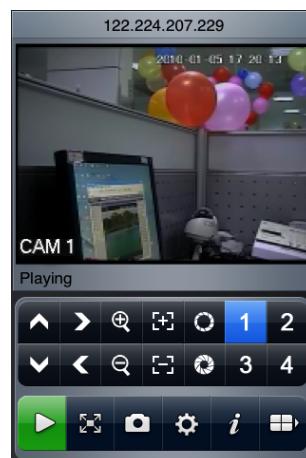


When you knife-hold the iPhone, system goes to the full-screen automatically.

7) Select the corresponding channel name, system can open the specified channel and then play the video automatically. System default setup is to display the channel 1 to channel 4.



Please click on the  icon to display the next four channels (the channel 5 to channel 8). You can click this button again to go back to previous four channels (channel 1 to channel 4.).



#### Important

System default setup is to display 8 channels after initialization. That is to say, there are two options: channel 1-4 and channel 5-8.

After the device connected to the iPhone or Andriod, system can support 16-ch or 32-ch according to your device type.

---

## 7.2 Blackberry mobile phone

### 7.2.1 Environment

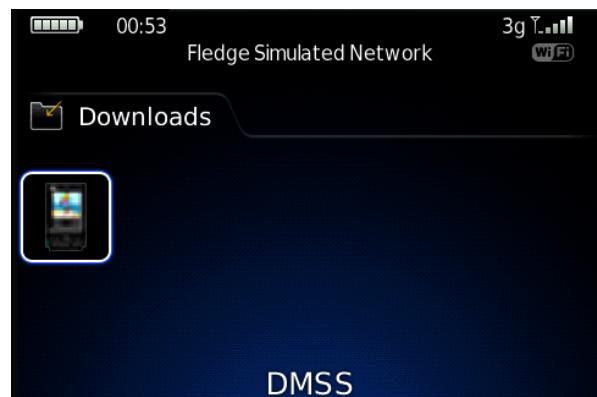
- Just support Blackberry Version 4.6.0 and 5.0
- The connected devices shall support RTSP service.
- You can download the firmware from the CD.

### 7.2.2 Mobile Phone Software

Please refer to the Blackberry mobile phone user's manual to install the software to the mobile phone. Usually you need to use the Blackberry desktop manager to install.

Software Login

In the mobile phone, from Function to the Download, you can see the software shortcut menu.



Click the  button; you have the interface below.



- Device IP: Device IP or domain name.
- Device port: Device login port.
- User name: Please input the user name here.
- Password: Please input the corresponding password.
- Network: Please select the network here. It includes two options: WiFi / Other.

---

Mobile phone monitor software can remember the recent login device information, so that you can login conveniently the next time.

If you cannot login, please check:

- Input information is valid.
- Server is running properly now.
- Network connection is OK (please access a website via browser to make sure you have connected to the Internet.)

### 7.2.3 Main Interface

When you log in you can see the interface below with the available channels.

- Back: Click on it to exit current interface.
- Exit: Exit the monitor software.



#### 7.2.4 Video Browser

Please select the corresponding channel you want to see; you can see the channel interface.

- Camera: Go to channel setup interface.
- PTZ: Display / Hide PTZ.
- Full: Click it to go to the full-screen display mode. You can click the rolling ball to exit the full-screen mode. The “space” button is the full-screen short cut button.
- Set: Go to video monitor setup interface.
- Exit: Exit current monitor software.



#### 7.2.5 PTZ Control

Please select the PTZ button to go to the PTZ operation interface. You can use the rolling ball to select the corresponding button here.

In the full-screen mode, you can use the rolling ball directly to control the PTZ direction.

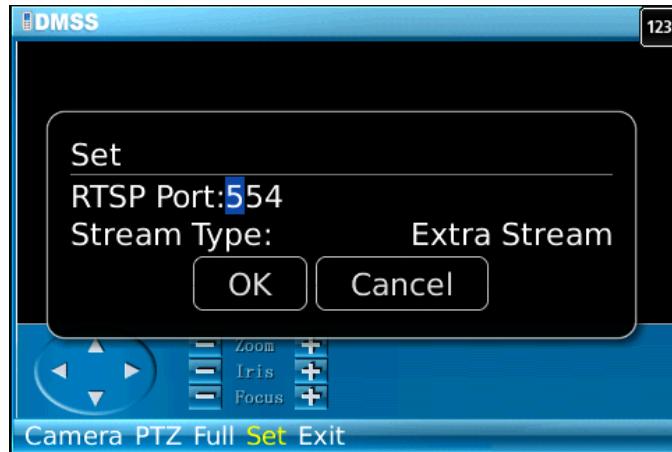
In video monitor mode, you can use E / S / X / F to realize the up / down / left / right PTZ operation.



### 7.2.6 Set

Click on “Set” button, you can see the following interface

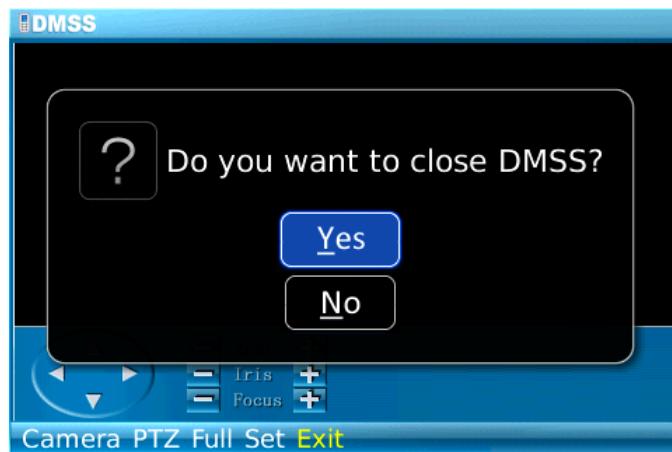
- RTSP port: You can set device listening port. Default value is 554.
- Stream type: You can select the stream type. It includes two options: main stream / extra stream.



### 7.2.7 Exit

Select “Exit” button, you can see the following interface.

Select the “Yes” button; you can exit the mobile phone monitor software.



#### Note

This user's manual is for reference only. Slight difference may be found in user interface. All the designs and software here are subject to change without prior written notice.

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## 7.3 Symbian Mobile Phone

### 7.3.1 Environment

Technically speaking, this software can support all Symbian S60 3rd Edition Symbian S60 3rd Edition FP1, Symbian S60 3rd Edition FP2, Symbian S60 5th OS mobile phones. We recommend the mobile phone such as E71, N82, N85, 5530XM that have passed our test.

**Important:**

Before you install the software, some mobile phone may need to install the Nokia official OpenC library plugin glib.SIS, pips\_nokia\_1\_3\_SS.sis, stdcpp.SIS (Provided in the S60\_OpenC\_1\_6.rar file.). If the software installation failed, please install Nokia OpenC library.

The connected device shall support dual-stream function and you have enabled the extra stream.

### 7.3.2 Software Installation

Connect your mobile phone to the Nokia PC suite 7.1.26 (or higher). Copy the mobile phone monitor software (General\_DMSS-Symbian-Direct\_Eng\_15\_V1.53.O.R.110311-sis) to the phone from the CD (Use PC synchronization software or network download function).

Click the software and then follow the steps one by one to install the software to the mobile phone.

### 7.3.3 Mobile Phone Symbian Software

In the mobile phone, from start to the programm, you can see the software shortcut menu. Its icon is  (DMSS).



Click DMSS button, you can see the interface :

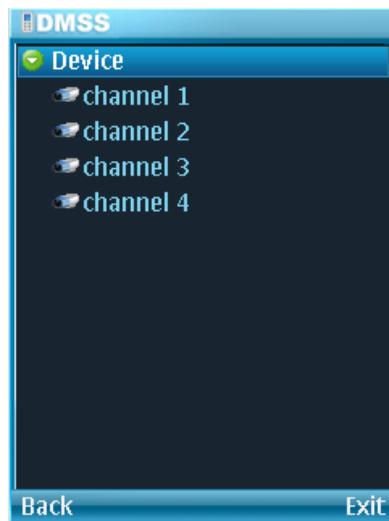


Input device IP, device port, User name and Password.

---

#### 7.3.4 Software Login

Click login button, you can see the following interface.

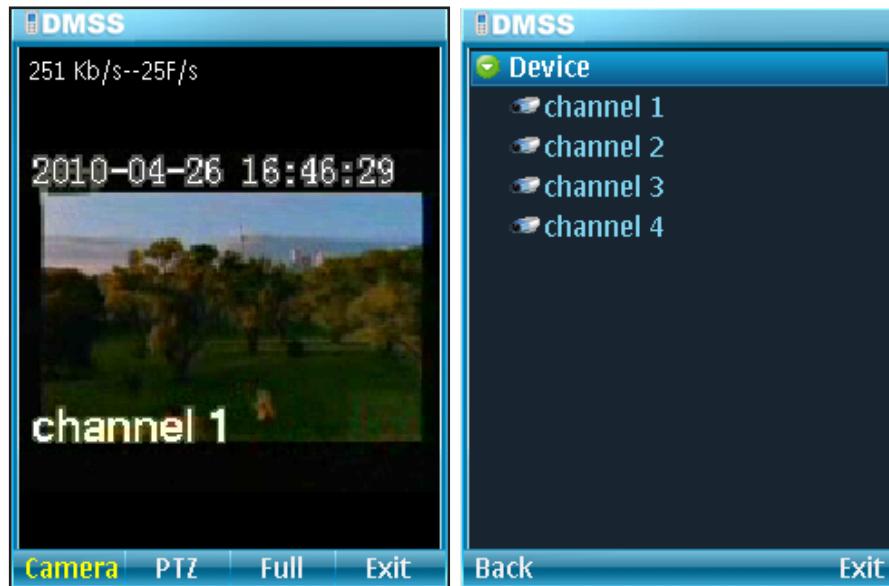


Mobile phone monitor software can remember the recent login device information, so that you can login conveniently the next time.

If you can not login, please check if:

- Input information is valid.
- Server is running properly now.
- Network connection is OK (please access a website via IE to make sure you are connected to the Internet.)
- Full screen: Switch to the full screen surveillance interface.
- Exit: Click it to exit the mobile phone surveillance.

### 7.3.5 Video Browser



Refer to the following information for button function.

- Back: Switch to the surveillance video.
- Camera: Switch to the channel selection interface.
- PTZ: Hide / display PTZ control interface.
- Full screen: Switch to the full screen surveillance interface.
- Exit: Click it to exit the mobile phone surveillance.

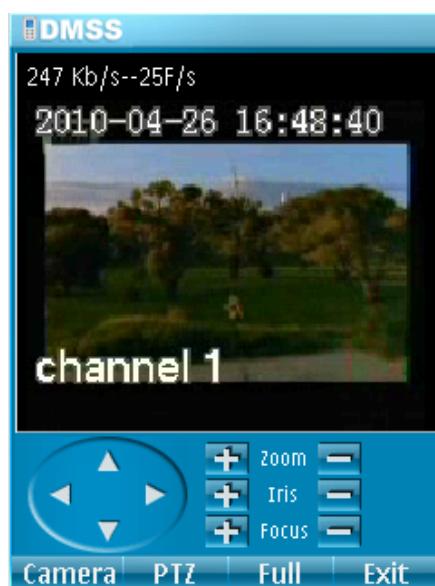
### 7.3.6 PTZ Control

The running function depends on the mobile phone.

Use the navigation button to select the PTZ item and then click the navigation button; you can see the following interface.

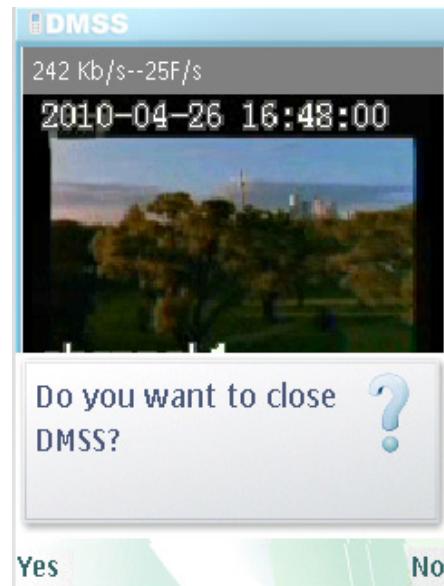
Use the navigation button to select the operation button you desire and then click the navigation button again; you can realize the corresponding function.

In the full-screen mode, you can use the navigation button directly to control the PTZ direction.



### 7.3.7 Exit

Click Right button or click the Exit button, you can see the following interface.  
Use the navigation button to select the Yes button; you can exit the mobile phone monitor software.



#### Note :

Slight difference may be found in user interface.  
All the designs and software here are subject to change without prior written notice.  
If there is any uncertainty or controversy, please refer to the final explanation of ours.  
Please visit our website for more information.

---

## 7.4 Windows Mobile Phone

### 7.4.1 Environment

This software supports Windows Mobile OS (5.0 or higher); Please refer to the following brand list:

- Dopod: C730, HTC Touch, HKC Pearl, HTC6800, HTC6900, HTC6850, P3450, P4550, S1, S420, S730, Touch; , LG KC1, KS20, 830, 838, 900, Athena, C800(C858), CHT 9000, CHT 9100, D600, D802, D810, E806c, M700, MUSE, P800W, U1000;
- Mio: A501; OKWAP K868 Plus, K869, A700;
- ASUS: P526, P535, P735;
- Holley: H8800; ;
- Gigabyte: GSmart t600, i350, g-Smart, g-Smart i, i300;
- Samsung: SGH-i718;
- Lenovo: ET980, ET600, ET980T;
- Amoi: E850, E860, E870;
- Gionee: S600;
- Sharp: EM ONE;
- CoolPAD: 728, 728B, 768, 838G2;
- HP: 6925, hw6828, iPAQ rw6818, rw6965;
- UTStarcom: P903, XV6700;
- Toshiba:G500; O2 Flame, Argon, Atom, Atom Life, Exec, mini S, XDA Neo, Orbi, Stealth; i-mate JAMA, JAO3, JAQ, JAQ3, JAQ4, JASJAR, PDAL and etc.

The connected device shall support dual-stream function.

### 7.4.2 Software installation

Copy the mobile phone monitor software to the phone (Use PC synchronization software or network download function). Click the software and then follow the steps one by one to install the software to the mobile phone. Or you can input the device IP address plus mss.cab in the browser address column. In this way, you can install the program to the mobile phone directly. For example, if your device IP is 10.7.4.74, then you can input <http://10.7.4.47/mss.cab> in the browser.



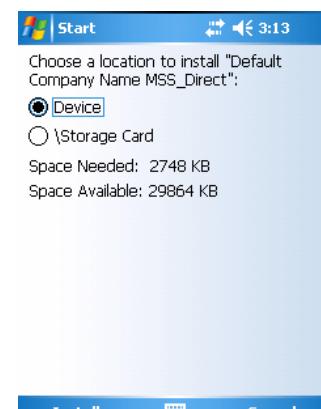
Welcome! Tap below to visit these sites, or [here](#) to learn about connecting to the Internet.

MOBILE OPERATOR

OEM



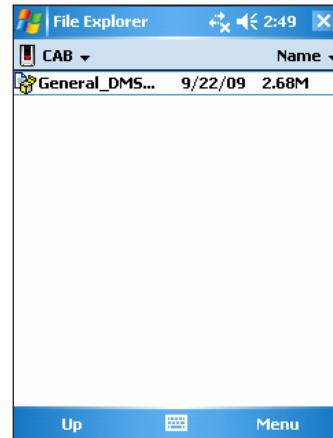
Then you can see the interface.



You can install the software now.

---

After software installation, you can see the following interface.



#### 7.4.3 Surveillance Software

In the mobile phone, from Start to the Program, you can see the software shortcut menu.

Its icon is  (DMSS).



Click DMSS button

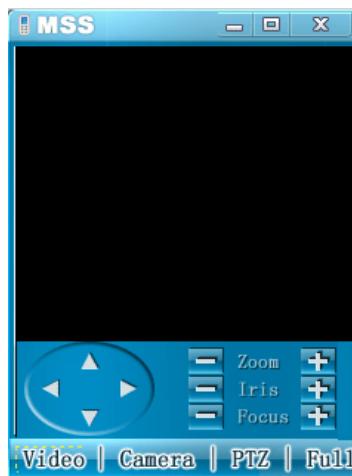


Input Device IP, Device port, User name and Password.

---

#### 7.4.4 Software Login

Click login button, you can see the following interface.



Mobile phone monitor software can remember the recent login device information, so that you can login conveniently the next time.

If you can not login, please check:

- Input information is valid.
- Server is running properly now.
- Network connection is OK (access a website via Internet Explorer to make sure you are connected to the Internet.)

#### 7.4.5 Video Browser

After you logged in, click Camera button first, then you can double click the device name in the device tree. Now you can view the device channel list. You can double click the channel name, or you can select the channel name and then click Video button to see the video. The interface is shown below.

During the real-time monitor process, there are three ways for you to go to full-screen mode.

- Click the video window once;
- Click the full button;
- Click the icon  on the top right corner.



---

#### 7.4.6 PTZ Control

There are two ways for you to control PTZ.

- In the full-screen mode (or you have open the PTZ control interface), you can use the direction buttons in the mobile phone to control the PTZ direction.
- In non-real-time monitor mode, you can click the PTZ button to go to the PTZ control interface. You can use the direction buttons in the interface to realize the corresponding function.



#### 7.4.7 Exit

Click the icon on the top right corner; you can exit the surveillance software.

**Note:**

- Slight difference may be found in user interface.
- All the designs and software here are subject to change without prior written notice.
- Please visit our website for more information.

## 7.5 DVR Setup

Please set the connected DVR encode information to make the device suitable for the mobile phone monitor. You can go to the DVR Web or go to the DVR local end to complete the setup. In this user's manual, we introduce how to finish setup at the local end.

### 7.5.1 ENCODE

In the ENCODE menu you can refer to the following setup:

- Resolution: CIF / QCIF.
- Frame Rate: The value ranges from 5 to 10.
- Bit rate type: CBR
- Bit Rate: 64-256Kb / S

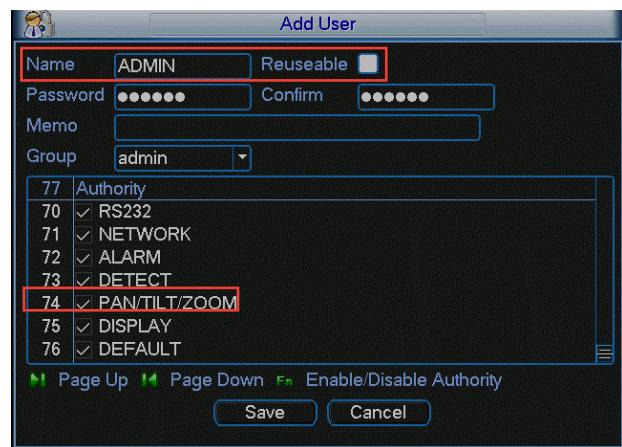


You can adjust the setup according to your mobile phone performance and network environment. You can lower the frame rate to guarantee fluent video if the network is not so good.

### 7.5.2 ACCOUNT

For mobile phone account, please make sure it is reusable (support multiple users using the same account to login at the same time) and has PTZ control right.

Then, when other users are monitor properly, you can use mobile phone to monitor and realize PTZ control operation.



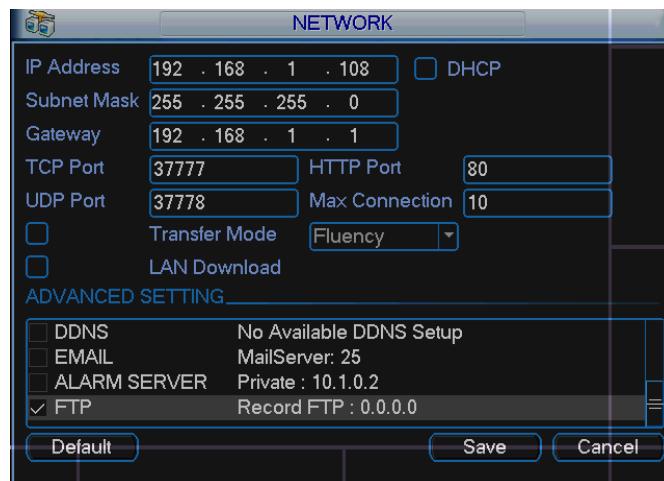
## 8 Auxiliary Functions

### 8.1 Snapshot

To use the snapshot function you have to install a FTP server first on a computer, the snapshots are only sent by FTP protocol.

#### 8.1.1 Install and setting FTP with nothing special

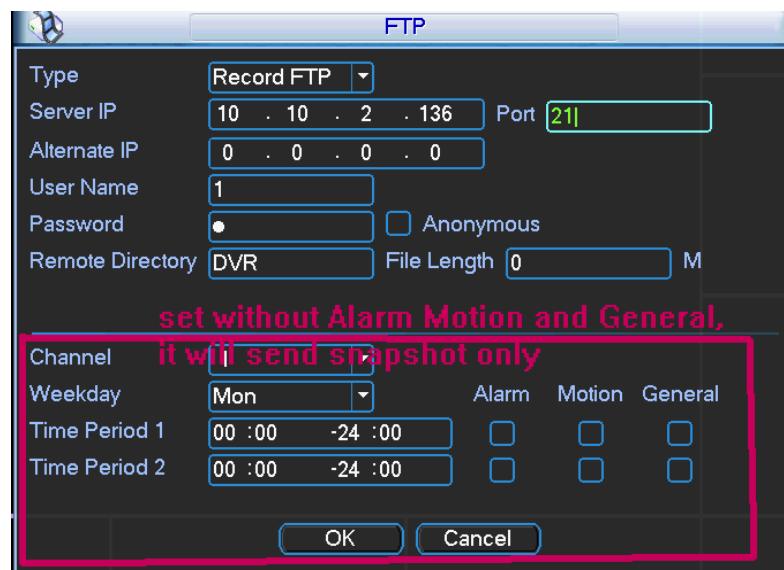
You can set the FTP function to sent the snapshot to the FTP server where you want to storage the snapshot, In MAIN MENU -> SETTING -> NETWORK, select FTP and double click on it.

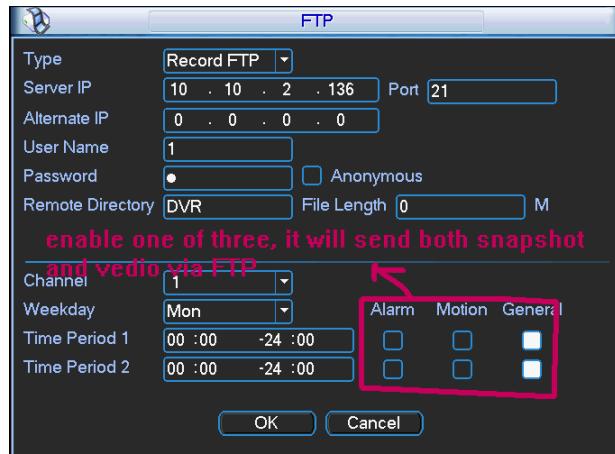


You can set the FTP server information. Input the FTP server, address, port, the remote directory, time and channel. See below.

User name and password is the account information for you to login the FTP (example below: my serverIP: 10.10.2.136, User name: 1 Password: 1).

After completed channel and weekday setup, you can set two periods for one each channel. File length is upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.



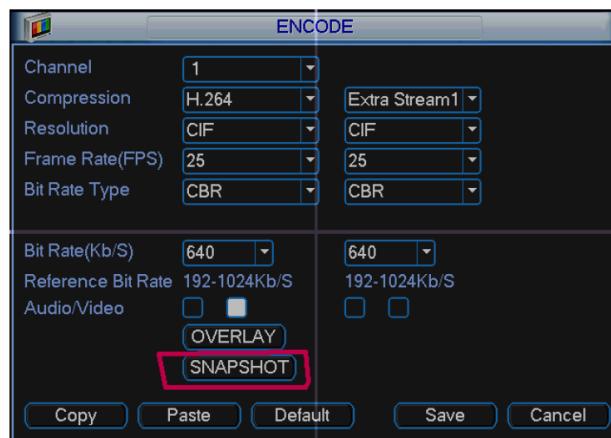


Please highlight the icon  in front of Enable to activate FTP function.

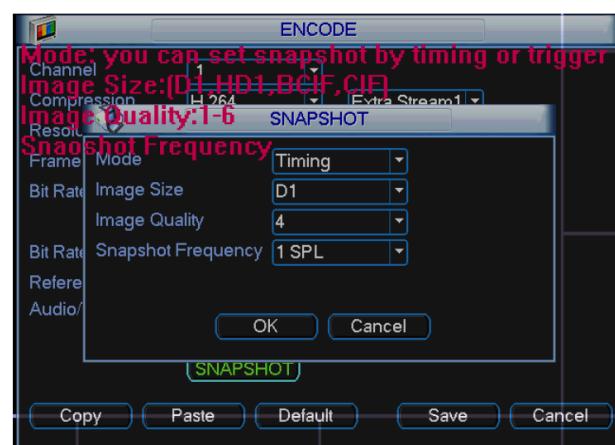
After enable schedule snapshot see below or activation snapshot see below, now system can upload the picture files to the FTP server.

### 8.1.2 Set Snapshot function

Get into MAIN MENU -> SETTING -> ENCODE and select "Snapshot" button.



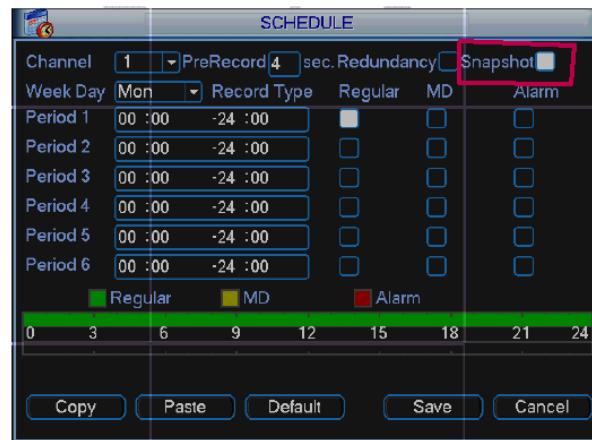
You have this interface:



And set the snapshot mode (Timing or Trigger), the image size and quality and the snapshot frequency as you want.

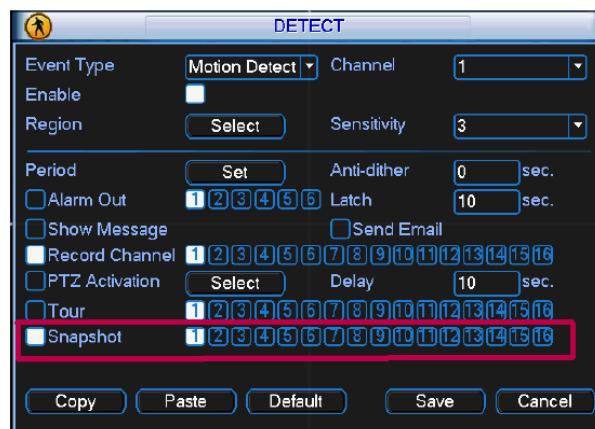
### Timing

If you set the Timing mode. System will send snapshot by time. So first you should set the schedule of snapshot. Get into MAIN MENU -> SETTING -> SCHEDULE

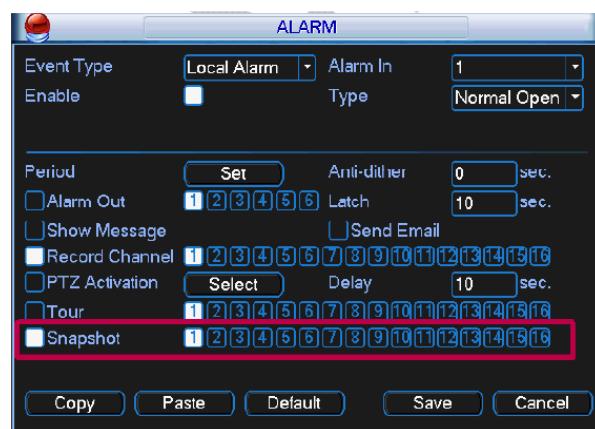


If you set the mode "trigger", you should set when to trigger the snapshot, the motion detection happen or the alarm comes.

Get into MAIN MENU -> SETTING -> DETECT



Get into MAIN MENU -> SETTING -> ALARM

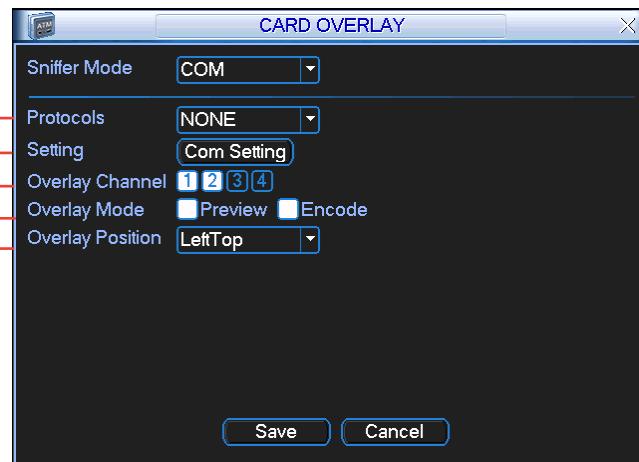


## 8.2 Text Overlay

The Text overlay function is for financial areas. It includes Sniffer, information analysis and title overlay function. The Sniffer mode includes COM and network.

### 8.2.1 COM Type

The COM interface is shown below.



1 - Protocol:

Select protocol from the dropdown list.

2 - Setting:

Click on COM setting button, the interface is shown as in RS232 interface. Refer to RS232 Chapter.

3 - Overlay channel:

Please select the channel you want to overlay the card number.

4 - Overlay mode:

There are two options: preview and encode.

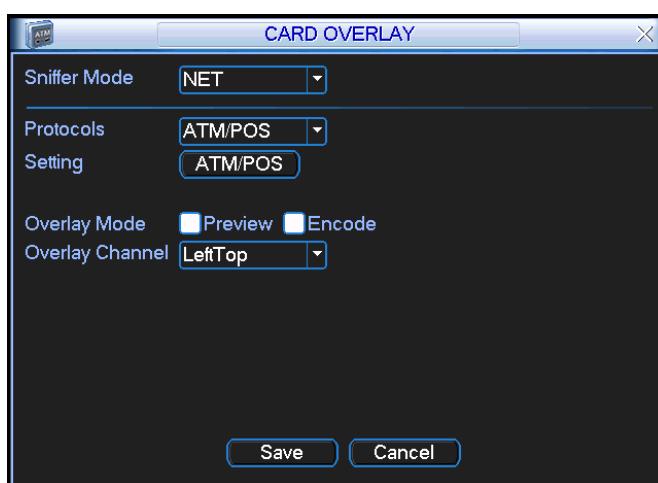
Preview means overlay the card number in the local monitor video encode means overlay the card number in the record file.

5 - Overlay Position:

Here you can select the proper overlay position from the dropdown list.

### 8.2.2 Network Type

The network type interface is shown below.



We take the ATM / POS protocol to continue.

There are two types: with or without the protocol according to client's requirements.

#### With the protocol

For ATM / POS with the protocol, you just need to set the source IP, destination IP (sometimes you need to input corresponding port number).

### Without the protocol

For the ATM / POS without the protocol, the interface is shown below.

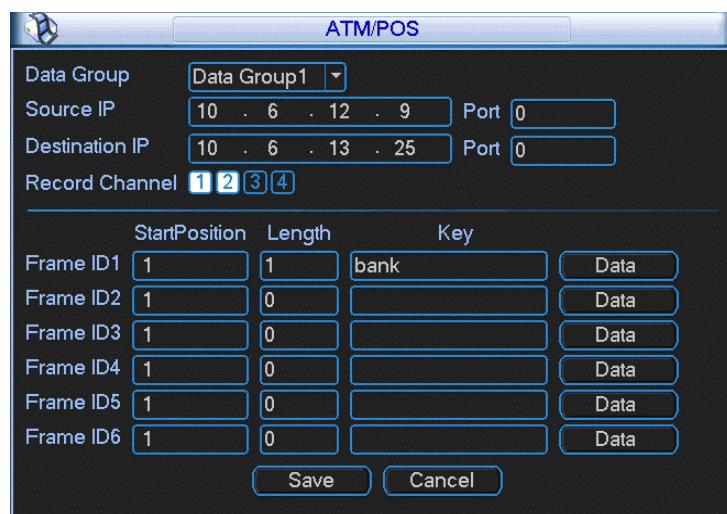
Source IP refers to host IP address that sends out information (usually it is the device host).

Destination IP refers to other systems that receive information.

Usually you do not need to set source port and target port.

There are total four groups IP. The record channel applies to one group (optional) only.

Six frame ID groups verification can guarantee information validity and legal.



The dialog box is titled "ATM/POS". It contains the following fields:

Data Group	Data Group1		
Source IP	10 . 6 . 12 . 9	Port	0
Destination IP	10 . 6 . 13 . 25	Port	0
Record Channel	1 2 3 4		

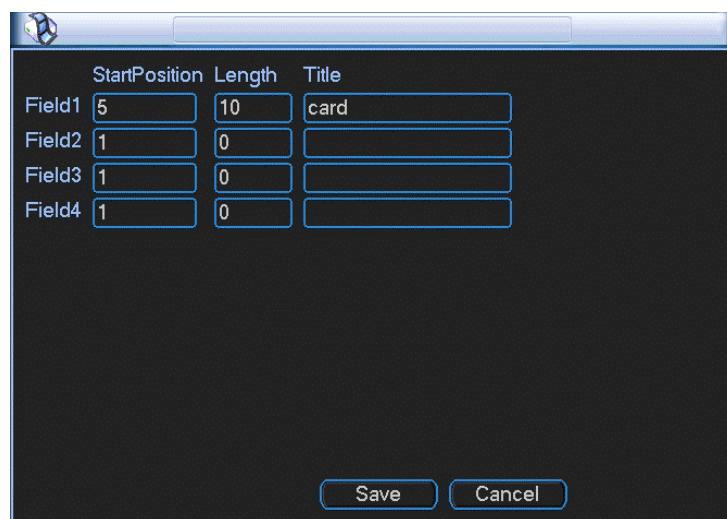
Below these are six rows for "Frame ID" with columns for "StartPosition", "Length", and "Key".

Frame ID	StartPosition	Length	Key
Frame ID1	1	1	bank
Frame ID2	1	0	
Frame ID3	1	0	
Frame ID4	1	0	
Frame ID5	1	0	
Frame ID6	1	0	

At the bottom are "Save" and "Cancel" buttons.

Click on "Data" button you can see an interface is shown below.

Here you can set offset value, length, title according to your communication protocol and data package.



The dialog box is titled "Data". It contains the following fields:

	StartPosition	Length	Title
Field1	5	10	card
Field2	1	0	
Field3	1	0	
Field4	1	0	

At the bottom are "Save" and "Cancel" buttons.

## 9. Web client operation

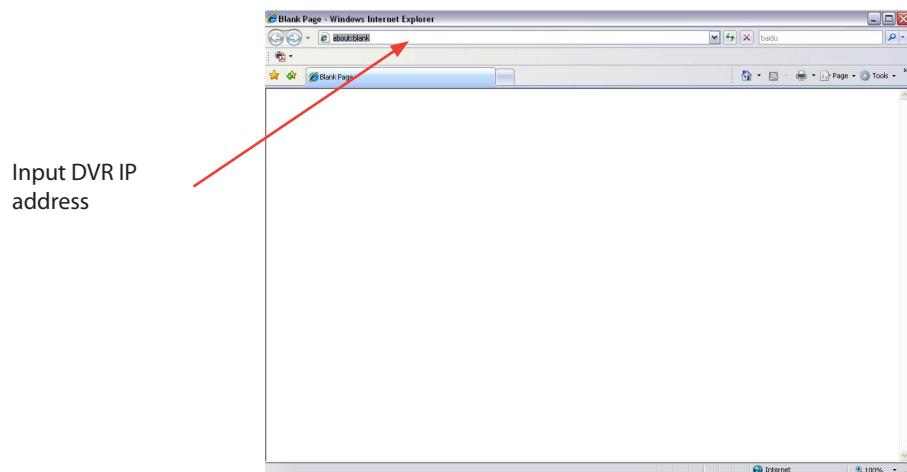
### 9.1 Network Connection

Before web client operation, please check the following items:

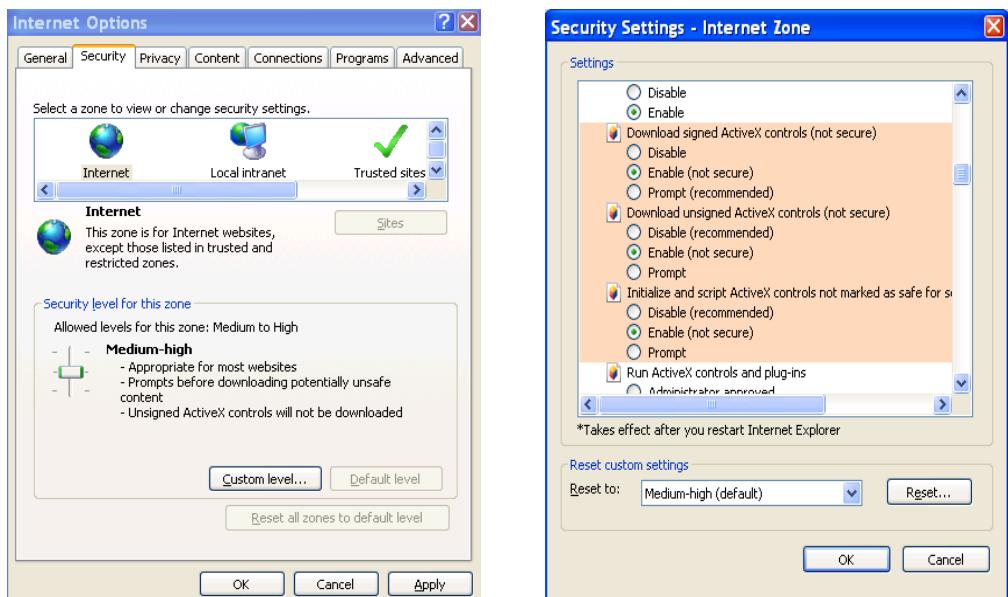
- Network connection is right.
- DVR and PC network setup is right. Refer to network setup(MAIN MENU -> SETTING -> NETWORK).
- Use order ping \*\*\*.\*\*\*.\*\*\*.\*\*\*(\* DVR IP address) to check connection is OK or not. Usually the return TTL value should be less than 255.
- Open the IE and then input DVR IP address.
- System can automatically download latest web control and the new version can overwrite the previous one.
- If you want to un-install the web control, please run uninstall webrec2.0.bat. Or you can go to C:\Program Files\webrec to remove single folder. Before you un-install, please close all web pages, otherwise the un-installation might result in error.

### 9.2 Login

Open Internet Explorer and input DVR address in the URL address. For example, if your DVR IP is 10.10.3.16, then please input http://10.10.3.16 in IE address column. See below.



System pops up warning information to ask you whether install webrec.cab control or not. Please click on "Yes" button. If you can't download the ActiveX file, please modify your settings as follows.

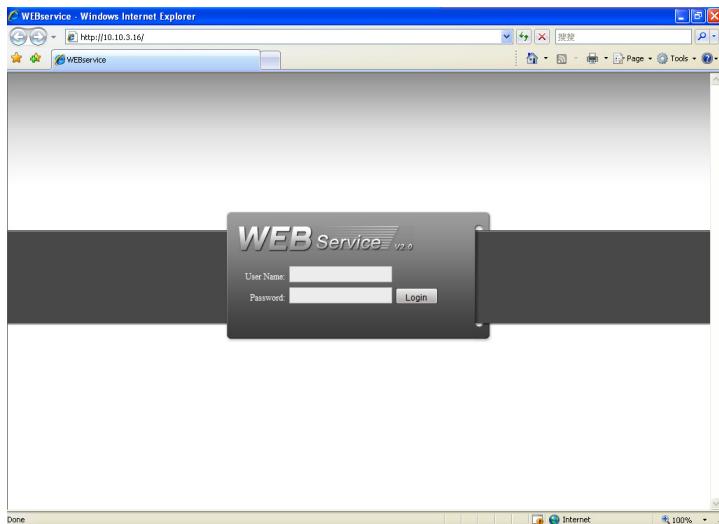


After installation, the interface is shown below.

Please input your user name and password.

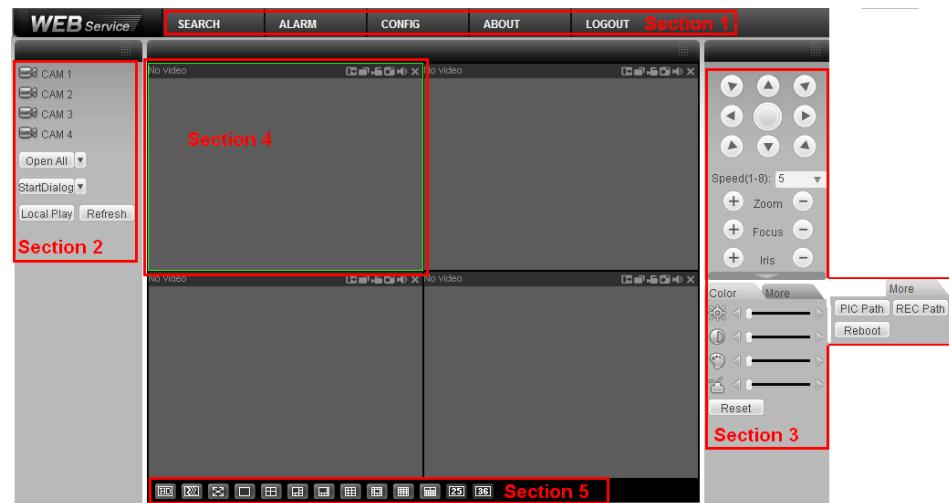
Default factory name is "admin" and password is "admin".

**Note:** For security reasons, please modify your password after you first login.



After you are logged in, you can see the main window.

This main window is divided in the following sections:



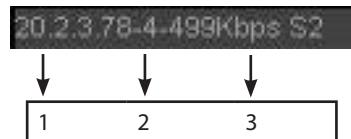
- Section 1 with five tab: "SEARCH", "ALARM", "CONFIGURATION", "ABOUT" and "LOGOUT".
- Section 2 with all the channel names and four function buttons: "Open / Close All", "Start / End Dialogue", "Local Play", "Refresh".
- Section 3 with the PTZ management buttons, the "Color" setting tab and the "More" tab in which you can set the local paths of the pictures ("PIC Path" button) and of the records ("REC Path" button) and you can also reboot the DVR ("Reboot" button).
- Section 4 with the real time preview window. The current preview is circled by a green rectangle.
- Section 5 with the channel display mode: the windows switch supports full screen / 1-window / 4-window / 6-window / 8-window / 9-window / 13-window / 16-window / 20-window / 25-window / 36-window. See below.



### 9.2.1 Real-time Monitor

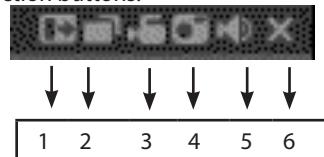
In section 2, left click on the channel name you want and the corresponding video displays on the current window (section 4).

Section 4, on the top left corner, you can see :



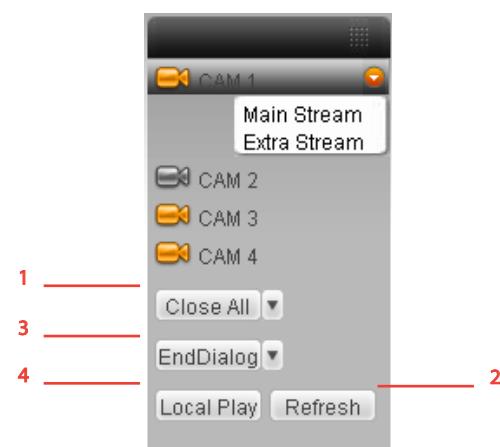
- 1: Device IP,
- 2: Channel number,
- 3: Network monitor bit stream.

On the top right corner, there are six function buttons.



- 1: Digital zoom: Click on this button and left drag the mouse to zoom in the zone.  
A right click mouse system restores original status.
- 2: Change display mode: resize or switch to full screen mode.
- 3: Local record. When you click on "local record" button, the system begins to record and this button becomes highlighted. By default C:\RecordDownload is the directory where the recorded files are. You can set a new path in the Section 3 click on tab "More" -> "REC Path" button.
- 4: Capture picture. The "capture picture" button take a snapshot in real time.  
By default all the pictures are saved in the directory C:\picture\download (default).  
You can set a new path in the Section 3, click on tab "More" -> "PICT Path" button.
- 5: Audio :Turn on or off audio.(It has no relationship with system audio setup).
- 6: Close video.

In Section 2, you can select Main Stream or Extra Stream switch.



1 - Open All – Close All :

You can click on it to open or close all the channels.

2 - Refresh:

You can use button to refresh camera list.

3 - Start Dialogue / End-Dialogue:

You can click this button to enable audio talk. Click  to select bidirectional talk mode. There are two options: DEFAULT / G711a.

The audio input port from the device to the client-end is using the first channel audio input port.

During the bidirectional talk process, system will not encode the audio data from the 1-channel.

4 - Local Play

The Web interface can playback the saved files (Extension name is dav) in the current computer. Click on the "Local Play" button, system pops up the following interface where you can select local files to play.

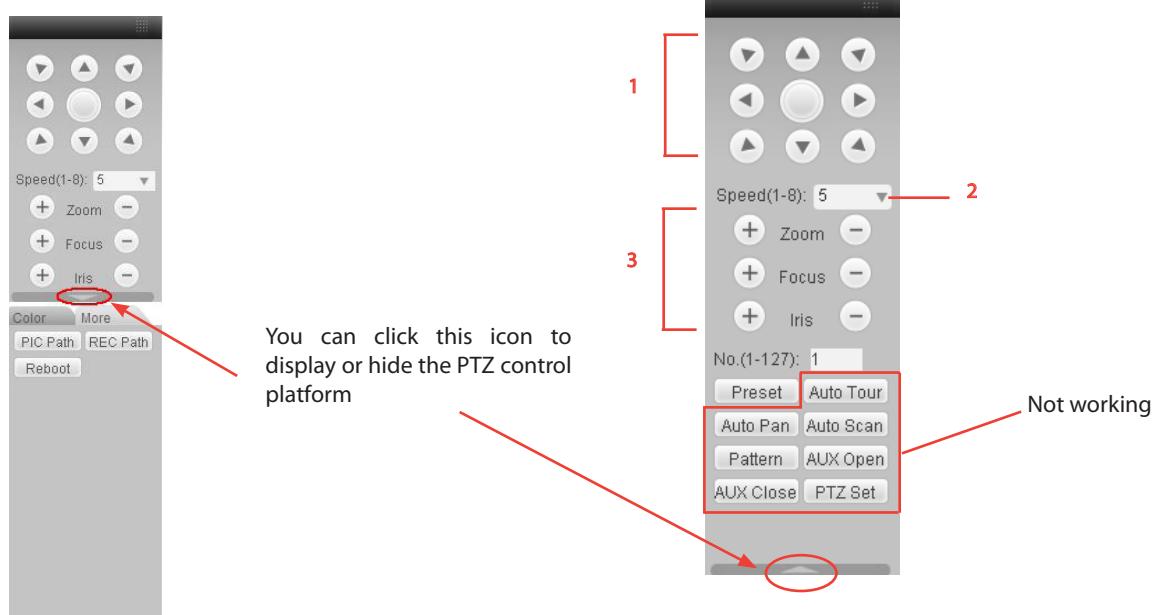


### 9.2.2 PTZ

Section 3: there are PTZ, "color" tab and "more" tab" where you can select "picture path" and "record path" and also you can reboot the DVR.

Before PTZ operation, please make sure you have properly set PTZ protocol. In MAIN MENU -> SETTING -> PAN / TILT / ZOOM.

Click on PTZ button, the interface is shown below.



1 - Direction key: There are eight direction keys, to move the PTZ camera.

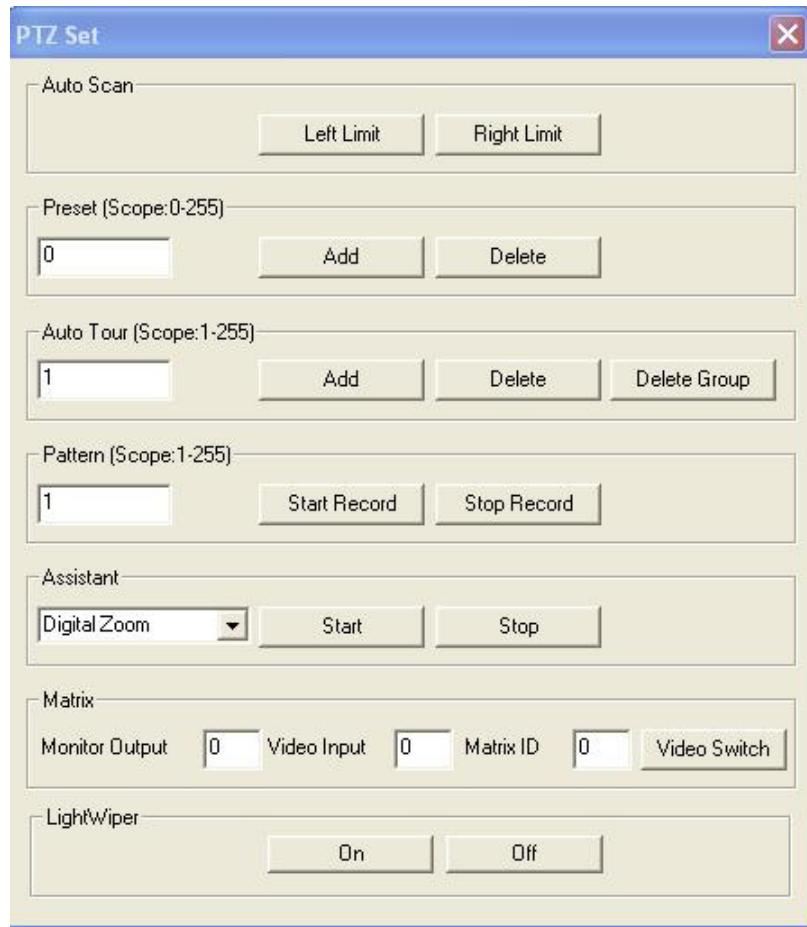
2 - Speed: System supports eight-level speed. You can select from the dropdown list.  
Speed 2 is faster than speed 1.

3 - Zoom / Focus / Iris

Please refer to the following tab for detailed information.

Name	Function key	Function	Function key	Function
Zoom	[-]	Near	[+]	Far
Focus	[-]	Near	[+]	Far
Iris	[-]	close	[+]	Open

Click "PTZ setup" button you can see the following interface.



- Auto Scan: (Not available)
- Pattern: (Not available)
- Preset: Move the camera to your desired location and then input preset value.  
Click "Add" button, you have set one preset.
- Auto tour: (Not available)
- Assistant: You can select the assistant item from the dropdown list.
- Matrix: This series product supports matrix extension function.  
You can control the video input and output switch.
- Light and wiper: If your PTZ protocol supports the light and wiper control function.  
You can enable / disable the light or the wiper.

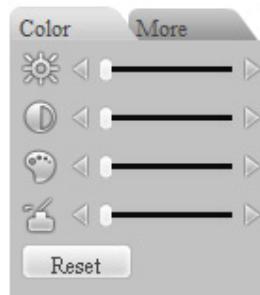
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### 9.2.3 Color

Click on "Color" tab in section 3. You have this interface.

Here you can select one channel and then adjust its brightness, contrast, hue and saturation. (Current channel border becomes green).

Or you can click reset button to use system default setup.



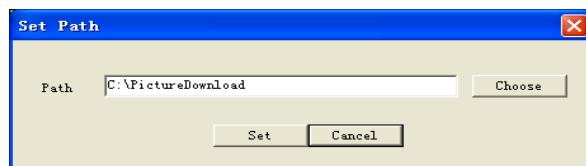
### 9.2.4 Picture Path and Record Path

Click on "More" tab, you can see this interface:

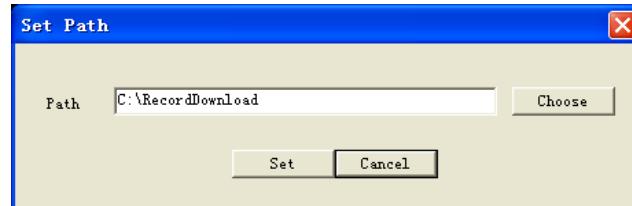


Click picture path button, you can see the follow interface.

Click on "Choose" button to modify path.



Click record path button, you can see the follow interface.  
Click on "Choose" button to modify path.



Click on "reboot" button, system pops up the following dialogue box



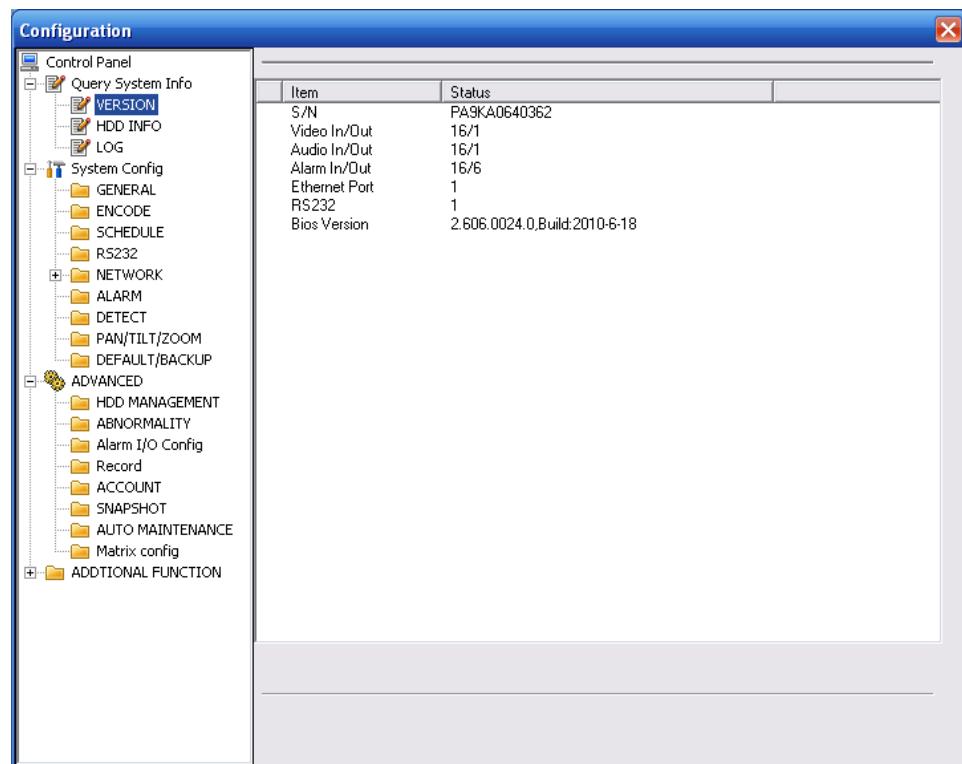
Click on "OK" to reboot.

If there is local use logged in the system menu, or the Web logged in user has no right to reboot the device system pops up a dialogue box to alert you.

### 9.3 Configuration (in section 1 "CONFIG.")

#### 9.3.1 System Information

##### Version Information

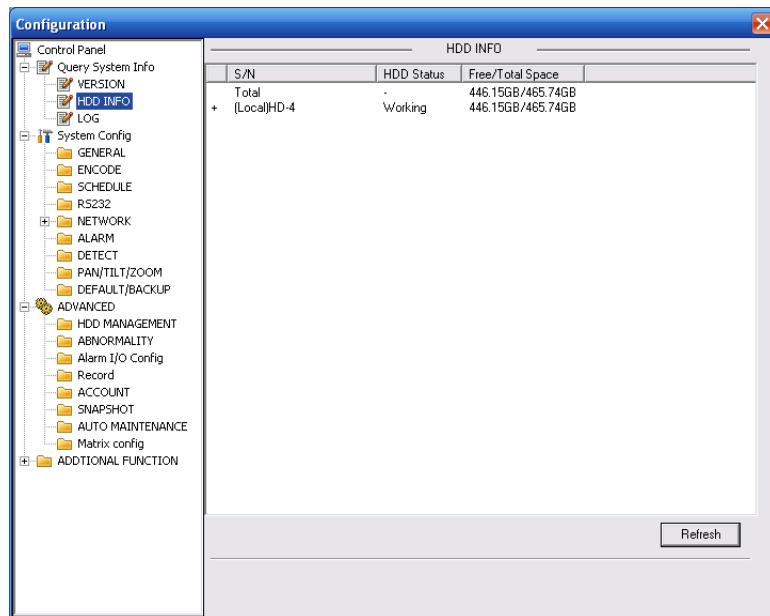


Item	Status
S/N	P49KA0640362
Video In/Out	16/1
Audio In/Out	16/1
Alarm In/Out	16/6
Ethernet Port	1
RS232	1
Bios Version	2.606.0024.0, Build:2010-6-18

You can see the device hardware features and the software version information.

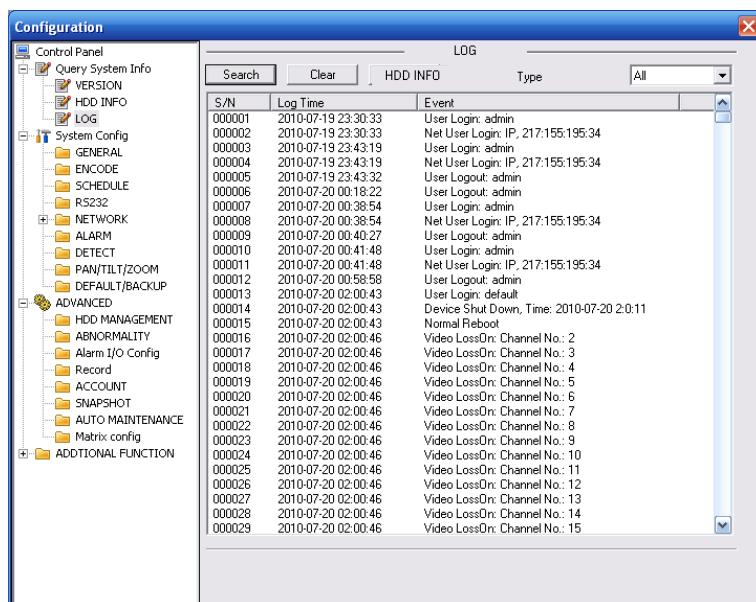
## HDD information

You can see local storage status and network status including, free capacity and total capacity.

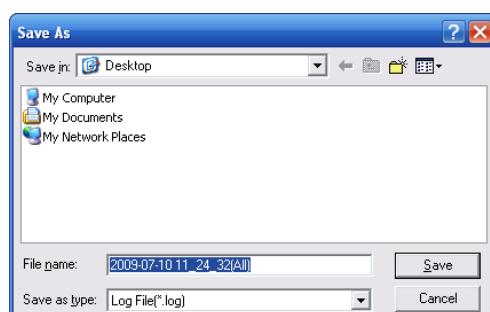


## Log

Here you can see the system log.



Click on the "Backup" button, you have this interface.



Refer to the following tab for log parameter information.

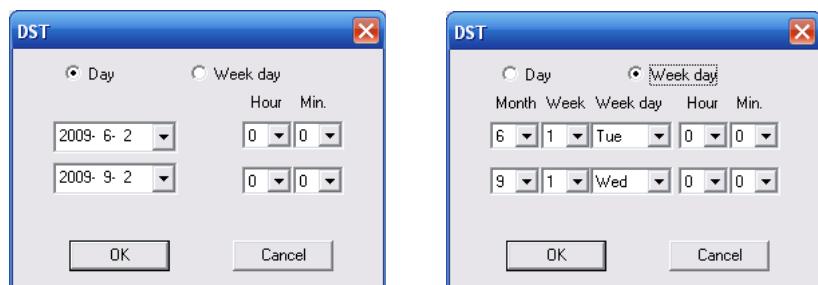
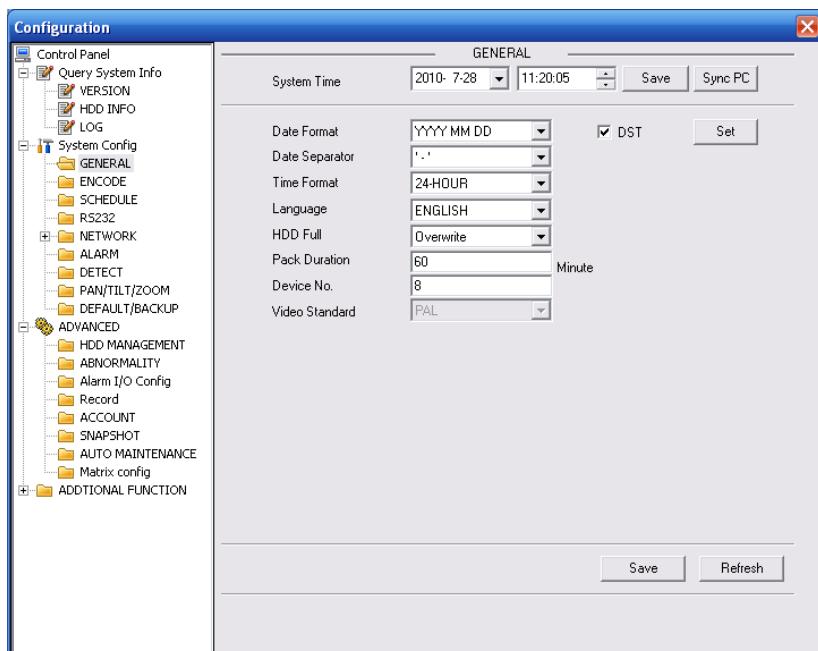
Parameter	Function
Type	Log types include: system operation, configuration operation, data management, alarm event, record operation, user management, log clear and file operation.
Search	You can select log type from the drop down list and then click search button to see the list.
Clear	You can click on this button to delete all displayed log files. <b>Note</b> the system does not support clear by type.
Backup	You can click this button to backup log files to current PC.

### 9.3.2 System Configuration

Click on "Save" button to save your current setup.

#### General Setup

You can set system time, record length, video format and etc..



Refer to the following tab for detailed information.

Parameter	Function
System Time	Here is for you to modify system time. Please click on "Save" button after your completed modification.
Sync PC	You can click this button to save the system time as your PC current time.
Date Format	Here you can select date format from the dropdown list.
Data Separator	Please select separator such as – or / .
Time Format	There are two options: 24-H and 12-H.
DST	Here you can set day night save time begin time and end time. See figures above.
Language	You can select the language from the dropdown list. Device needs to reboot to get the modification activated.
HDD Full	There are two options: stop recording or overwrite the previous files when HDD is full. When current working HDD is overwriting or it is full now, system stops record. If current working HDD is full now, system goes to overwrite the previous file.
Pack Duration	Here you can select record time. The value ranges from 1 to 120. Default setup is 60 minutes.
Device No	When you are using one remote control to manage multiple devices, you can give a serial numbers to the device.
Video Standard	PAL Please <b>Note</b> , for the Web user, this information is for reference only. You can not modify.

## Encode

Encode interface is shown

The Configuration software interface for encode settings. The main window shows the following configuration for Channel 01:

- Channel:** Channel 01
- Compression:** H264
- Main Stream:** Main Stream
- Resolution:** CIF
- Frame Rate(FPS):** 25
- Bit Rate Type:** CBR
- Bit Rate(Kb/s):** 640
- Reference Bit Rate:** 192~1024Kbps
- Color Setting:** Brightness: 52, Contrast: 49, Saturation: 50, Hue: 50, Gain: 49
- Overlay:** Cover-Area: NEVER, Time Display: checked, Channel Display: checked

The 'Color Setting' dialog box shows the following values:

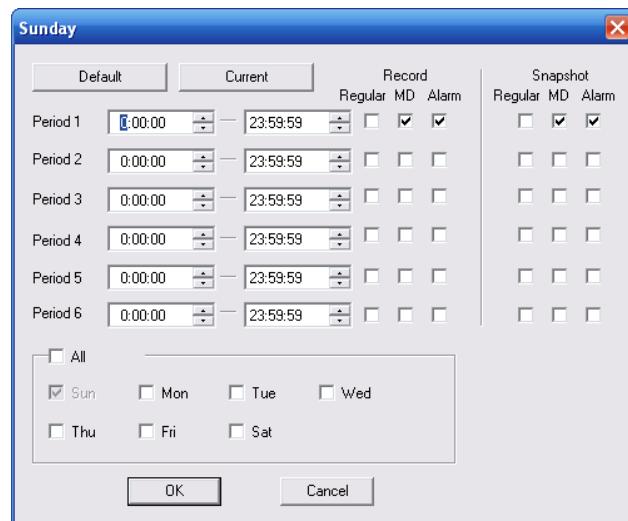
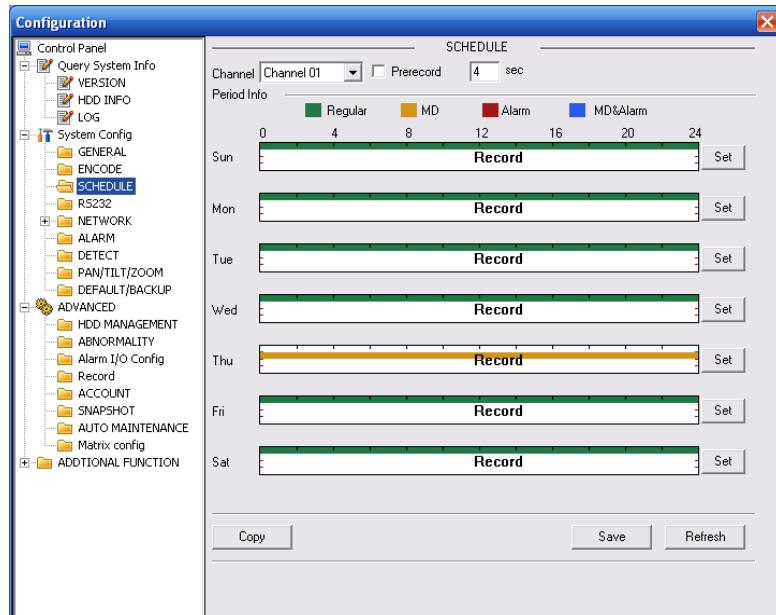
- Brightness:** 52 (0~100)
- Contrast:** 49 (0~100)
- Saturation:** 50 (0~100)
- Hue:** 50 (0~100)
- Gain:** 49 (0~100)

Refer to the following tab for detailed information.

Parameter	Function
Channel	Here is for you to select a monitor channel.
Channel Name	Here is to display current channel name. You can modify it.
Compression	H.264
Main Stream	<p>It includes main stream, motion stream and alarm stream. You can select different encode frame rates from different recorded events.</p> <p>System supports active control frame function (ACF). It allows you to record in different frame rates.</p> <p>For example, you can use high frame rate to record important events, record scheduled event in lower frame rate and it allows you to set different frame rates for motion detection record and alarm record.</p>
Extra Stream	Select extra stream if you enabled the extension stream to monitor.
Audio / Video	For the main stream, recorded file only contains video by default. Need to select audio function. For extra stream, select the video first and then select the audio if necessary.
Resolution	Main stream resolution supports D1 / CIF / QCIF. Extra stream of channel 1 to channel 32 support QCIF only.
Frame Rate	PAL: 1 ~ 25f / s;
Bit Rate Type	There are two options: VBR and CBR. Please <b>Note</b> , you can set video quality in VBR mode only.
Quality	The value ranges from 1 to 6. The level 6 is the best video quality.
Bit Rate	<p>In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value.</p> <p>The value is null in VBR mode.</p> <p>Please refer to recommend bit rate for the detailed information.</p>
Recommended Bit	Recommended bit rate value according to the resolution and frame rate you have set.
Color Setting	Here you can set video brightness, contrast ness, hue, saturation and gain. The value ranges from 0 to 100. Default value is 50.
Cover area (privacy mask)	Here you can privacy mask the specified video in the monitor video. One channel max supports 4 privacy mask zones. The privacy mask includes two options: Never / monitor. Never: It means do not enable privacy mask function. Monitor: the privacy mask zone can not be viewed in monitor mode.
Time Title	You can enable this function so that system overlays time information in video window. OSD transparent value ranges from 0 to 255. 0 means complete transparent.. You can use the mouse to drag the time tile position.
Channel Title	You can enable this function so that system overlays channel information in video window. OSD transparent value ranges from 0 to 255. 0 means complete transparent. You can use the mouse to drag the channel tile position.
Copy	It is a shortcut menu button. You can copy current channel setup to one or more channels.
Save	You can click on "Save" button after you complete setup for one channel, or you can complete the whole setups and then click on "Save" button.
Refresh	Click this button to get device latest configuration information.

## Schedule

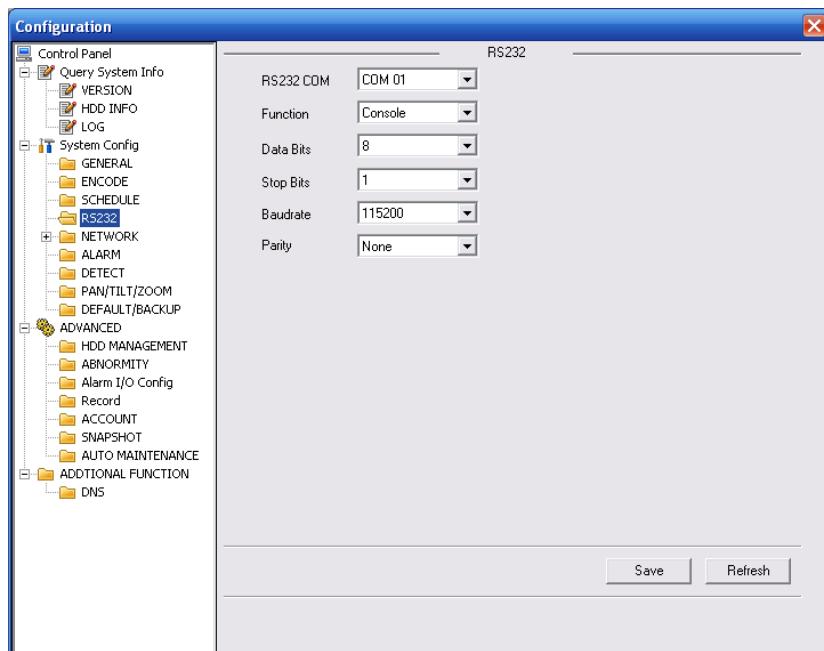
Here you can set different periods for various days. There are max six periods in one day.



Parameter	Function
Channel	Select a channel first.
Pre-record	Input pre-record value here. System can record the three to five seconds video before activating the record operation into the file. (Depends on data size).
Set	Click on "Set" button, you can go to the corresponding setup interface. Set schedule period and then select corresponding record or schedule, motion detection and alarm. Select date (Current setup applies to current day by default. Select the week to apply the setup to the whole week.) After complete setup, click on "OK" button the system go back to the first interface and then click on "Save" to save current time period setup.
Copy	It is a shortcut menu button. You can copy current channel setup to one or more (all) channels.
Save	You can click on the "Save" button after you complete setup for one channel, or you can complete the whole setups and then click on the "Save" button.
Refresh	Click this button to get device latest configuration information.

## RS232

The RS232 is the following interface.



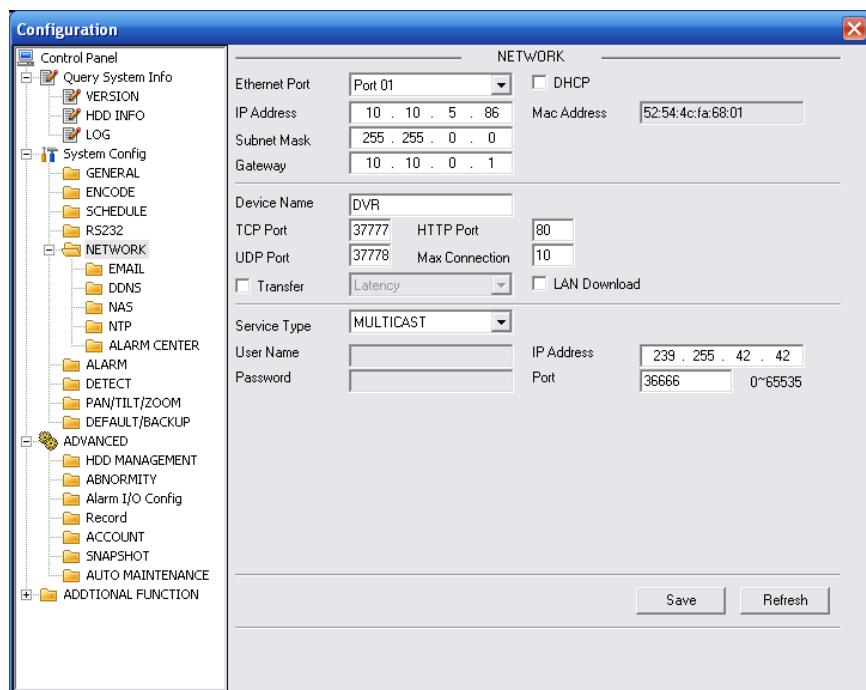
Parameter	Function
RS232	There are two options: COM 01 and keyboard.
Function	Console is to upgrade the program or debug via COM or mini terminal software. Keyboard: COM control protocol. You can use keyboard to control DVR via COM.
Data Bit	The value ranges from 5 to 8.
Stop Bit	There are three options: 1 / 2.
Baud Bit	You can select corresponding baud bit here.
Parity	There are five options: none / odd / even / space / mark.

System default setup is:

- Function: Console.
- Data bit: 8
- Stop bit: 1
- Baud bit: 115200
- Parity: None.

## Network

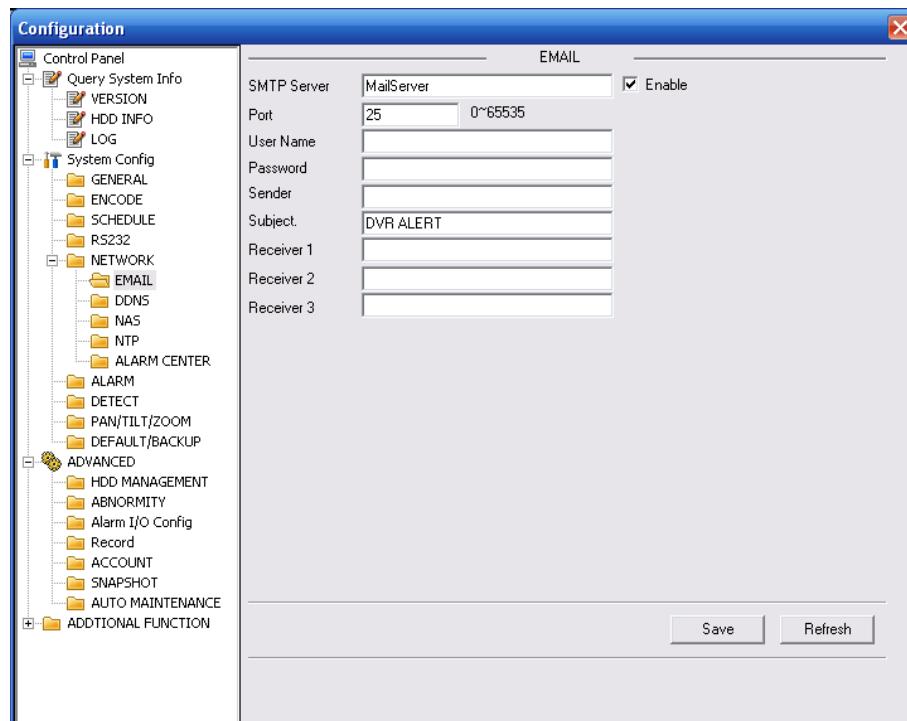
Network is the following interface.



Parameter		Function
Ethernet		Please select the network card first.
DHCP		Dynamically get IP address. You can get the device IP from the DHCP server if you enabled this function.
TCP Port		Default value is 37777.
HTTP Port		Default value is 80.
UDP Port		Default value is 37778.
Max Connection		Network user max amount. The value ranges from 0 to 10. 0 means there is no user can access current device.
Remote Host	Multiple cast group	<ul style="list-style-type: none"> <li>Set MULCAST address and port.</li> <li>Enable MULCAST function.</li> </ul>
	PPPOE	<ul style="list-style-type: none"> <li>Input the PPPoE user name and password you get from the IPS (internet service provider) and enable PPPoE function. Please save current setup and then reboot the device to get the setup activated.</li> <li>Device connects to the internet via PPPoE after reboot. You can get the IP address in the WAN from the IP address column.</li> <li>Please <b>Note</b> if you want to reboot the device please make sure you have proper reboot right and there is no login user in current device.</li> </ul>

#### a- Email

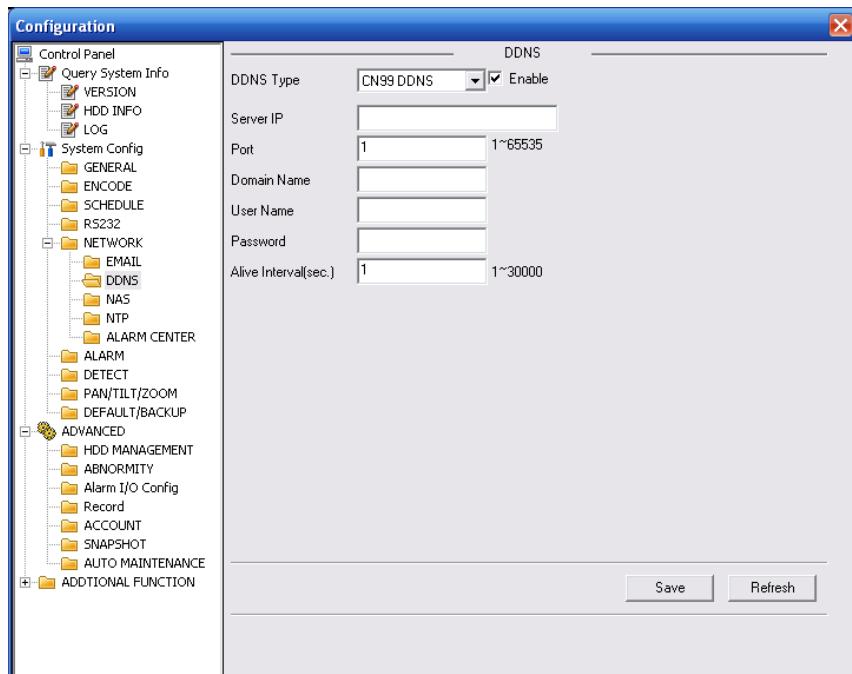
The email interface is the following interface



Parameter	Function
SMTP Server	Input server address and then enable this function.
Port	Input port value here.
User Name	The sender email account user name.
Password	The sender email account password.
Sender	Sender email address.
Subject	Input email subject here. Max 32-digit.
Address	Input receiver email address here. Max input three addresses. Support SSL encryption mailbox.

### b- DDNS

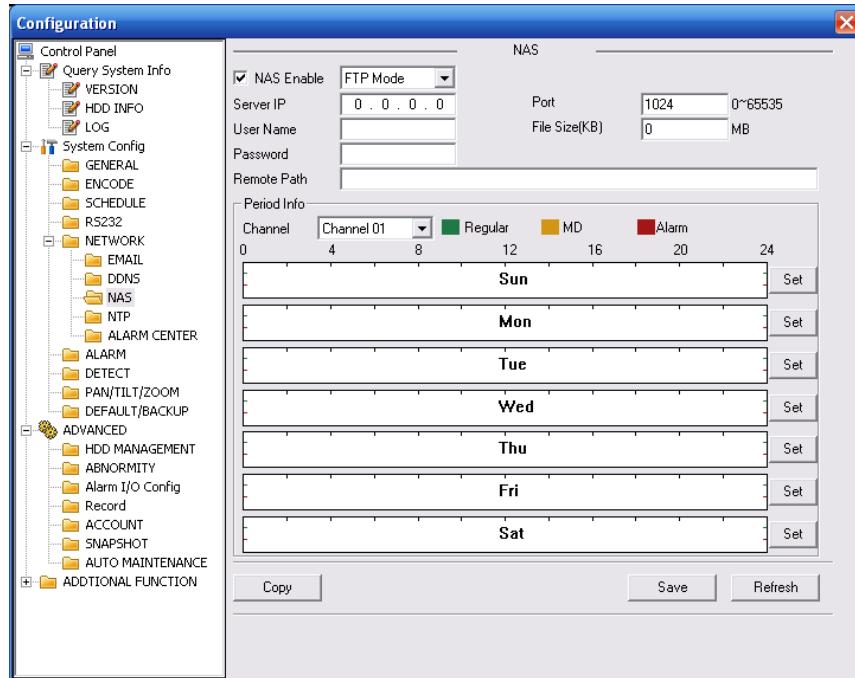
The DDNS interface is shown



Parameter	Function
Server Type	You can select DDNS protocol from the dropdown list and then enable DDNS function. The private DDNS protocol means you use your self-defined private protocol to realize DDNS function.
Server IP	DDNS server IP address.
Server Port	DDNS server port.
Domain Name	Your self-defined domain name.
User	The user name you input to log in the server.
Password	The password you input to log in the server.
Interval	<ul style="list-style-type: none"> <li>Device sends out an alive signal to the server regularly.</li> <li>You can set interval value between the device and DDNS server here.</li> </ul>

### c- NAS

NAS interface is shown below

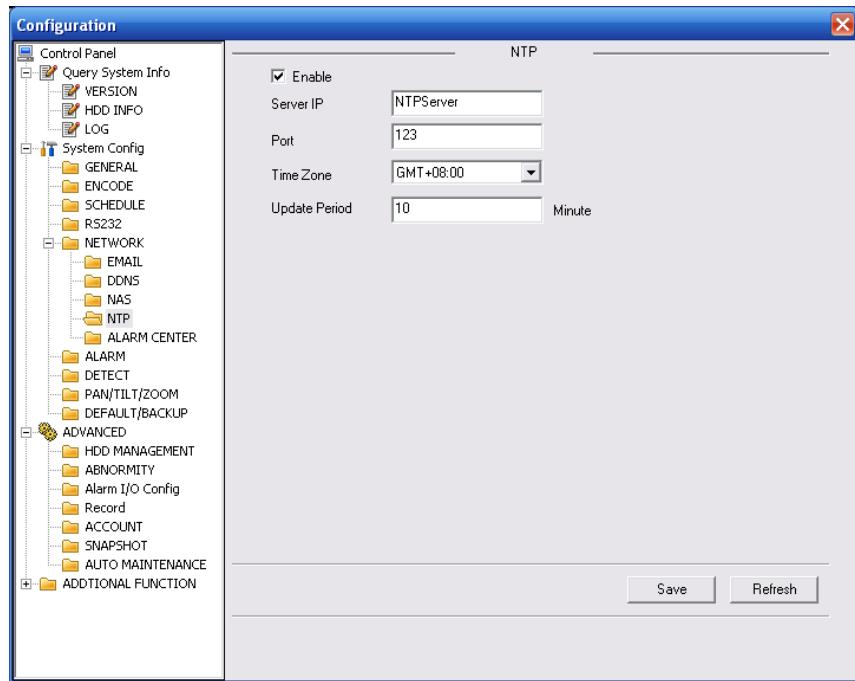


Parameter	Function
NAS enable	Please select network storage protocol and then enable NAS function.
Server IP	Input remote storage server IP address.
Port	Input Remote storage server port number.
User Name	Log in user account.
File size	The file length you upload to the FTP. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.
Password	The password you need to log in the server.
Remote Path	Remote storage file path.
Save	You can click on "Save" button after you complete setup for one channel, or you can complete the whole setups and then click on "Save" button.
Refresh	Click this button to get device latest configuration information.

### d- NTP

The NTP interface is shown below.

Here you can realize network time synchronization. Enable current function and then input server IP, port number, time zone and update interval. NTP only supports TCP transmission and its port shall be 123. The update interval ranges from 1 to 65535. Default value is 10 minutes.



You can refer to the following sheet for time zone information.

City / Region Name	Time Zone
London	GMT+0
Berlin	GMT+1
Cairo	GMT+2
Moscow	GMT+3
New Deli	GMT+5
Bangkok	GMT+7
Beijing (Hong Kong)	GMT+8
Tokyo	GMT+9
Sydney	GMT+10
Hawaii	GMT-10
Alaska	GMT-9
Pacific Time (P.T)	GMT-8
American Mountain Time (M.T)	GMT-7
American Central Time (C.T)	GMT-6
American Eastern Time (E.T)	GMT-5
Atlantic Time	GMT-4
Brazil	GMT-3
Middle Atlantic Time	GMT-2

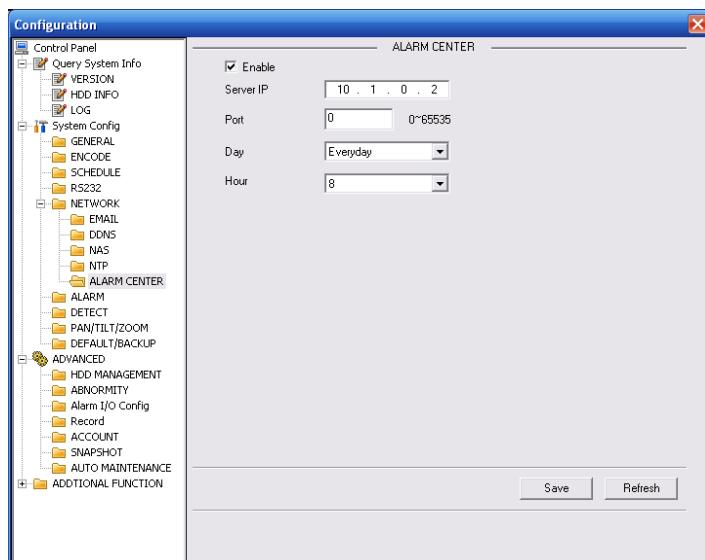
### e- Alarm Center

Alarm center interface is shown as below.

The alarm signal can be uploaded to the alarm centre when there is local alarm.

Set the corresponding parameters such as server IP, port and etc.

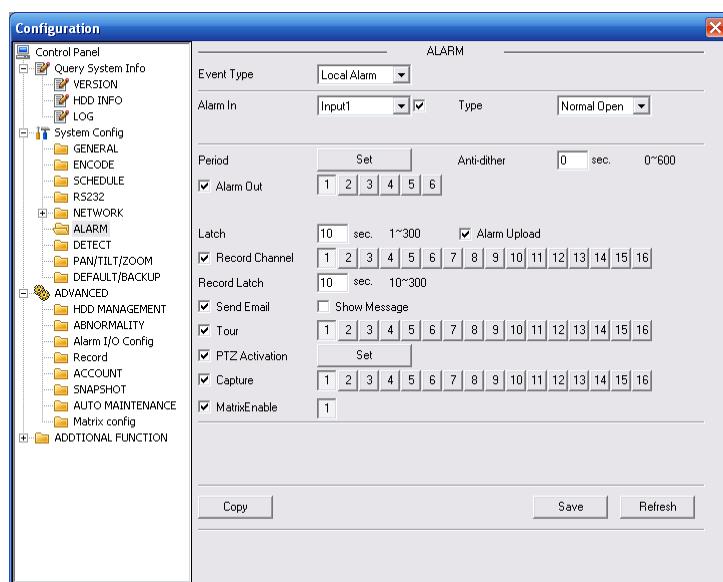
The system can send out the data as the protocol defined to the client end.



### Alarm

Alarm setup interface is shown below

Make sure you have connected the corresponding alarm output device such as the light, buzzer and etc.

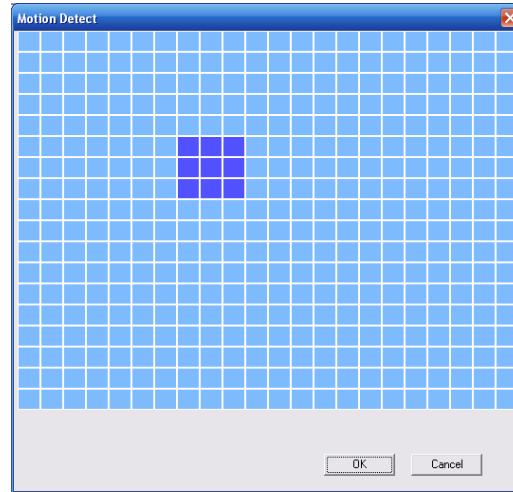
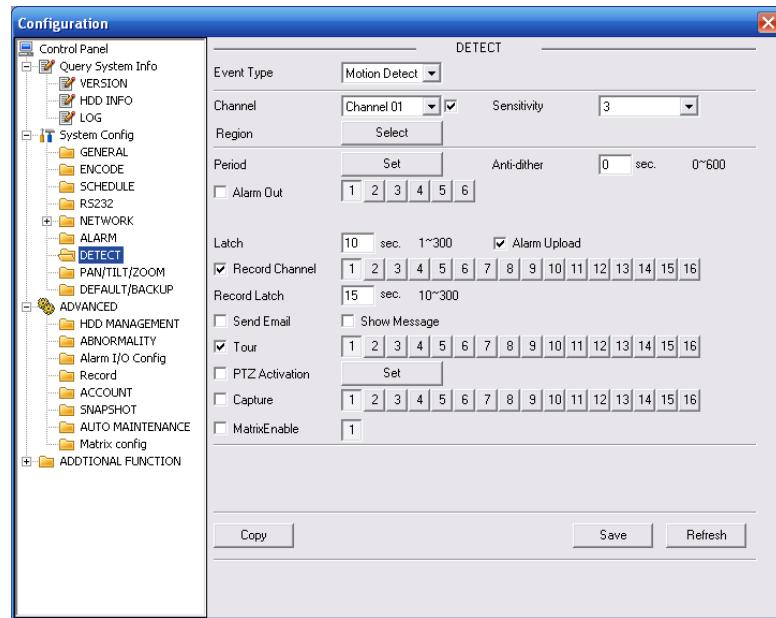


Parameter	Function
Event Type	It includes local alarm / network alarm. Local alarm: Device detects alarm from input port. Network: Device detects alarm from network.
Alarm in	Select corresponding alarm channel.
Enable	You need to draw a circle here so that system can detect the alarm signal.
Type	There are two options: normal open and normal close. NO becomes activated in low voltage, NC becomes activated in high voltage.
Period	Alarm record function becomes activated in the specified periods. There are six periods in one day. Please draw a circle to enable corresponding period. Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week. Click on "OK" button, system goes back to alarm setup interface, please click on "Save" button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 0 to 600s.
Alarm Out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when alarm occurred.
Alarm Latch	System can delay the alarm output for specified time after alarm ended. The value ranges from 10 seconds to 300 seconds.
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre).
Record Channel	System auto activates current channel to record once alarm occurs (working with alarm activation function). Please <b>Note</b> current device shall be in auto record mode (Chapter 4.4 Schedule).
Record Latch	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Email	Please draw a circle to enable email function. System can send out email to alert you when alarm occurs and ends.
Tour	Display the selected video in local monitor window. Tour interval and tour mode are set in DVR local menu (Display chapter)
PTZ activation	Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm.
Capture	You need to input capture channel number so that system can backup snapshot file when alarm occurs.
Copy	It is a shortcut menu button. You can copy current channel setup to one or more (all) channels.
Save	You can click on "Save" button after you complete setup for one channel, or you can complete the whole setups and then click on "Save" button.
Refresh	Click this button to get device latest configuration information.

## Detect

Analysis the video, system enable motion detection alarm when it detects the motion signal reached the specified sensitivity.

The detection interface is shown below.

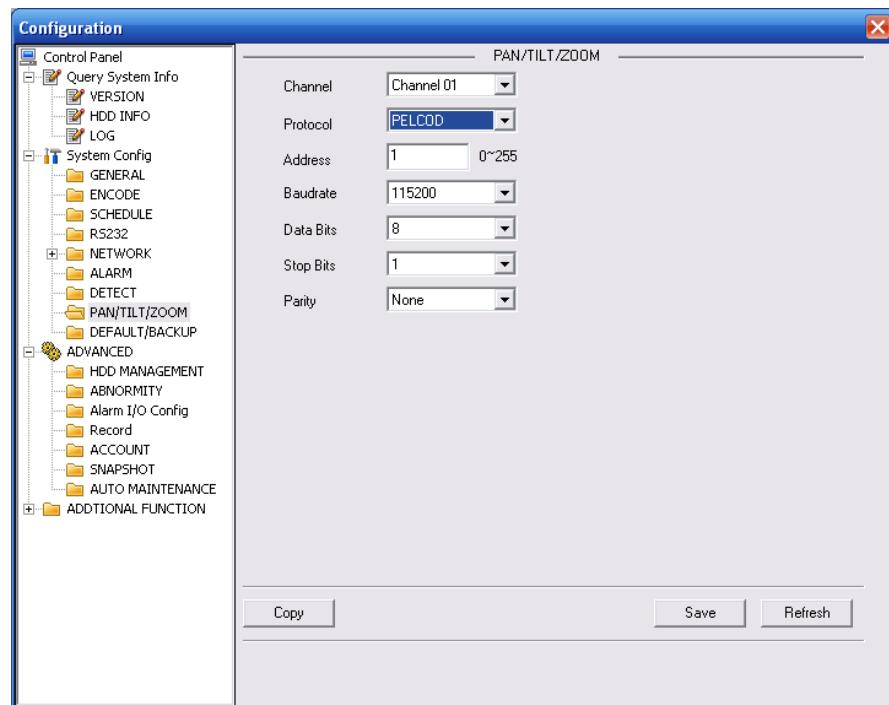


Parameter	Function
Event Type	There are three types: Motion detection / video loss / Camera Masking.
Channel	Select channel name from the dropdown list.
Enable	You need to draw a circle to enable motion detection function.
Sensitivity	There are six levels. The sixth level has the highest sensitivity.
Region	Region: If you select motion detection type, you can click this button to set motion detection zone. The interface is shown above. There are PAL 22X18 zones. Right click mouse you can go to full-screen display mode. Do remember clicking "OK" button to save your motion detection zone setup.
Period	Motion detection function becomes activated in the specified periods. There are six periods in one day. Please draw a circle to enable corresponding period. Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week. Click "OK" button, system goes back to motion detection interface; please click "Save" button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 0s to 600s.
Alarm out	There is 2-channel alarm output. Corresponding to motion detection alarm output port (multiple choices). Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when alarm occurs.
Latch	System can delay the alarm output for specified time after alarm ended. The value ranges from 10s to 300s.
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre).
Record channel	System auto activates motion detection channel (multiple choices) to record once alarm occurs (working with motion detection function). Please <b>Note</b> you need to go to Schedule chapter to set motion detection record period and go to Record chapter to set current period as auto record.
Record latch	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Email	If you enabled this function, system can send out email to alert you when alarm occurs.
Tour	Display the selected video in local monitor window. Tour interval and tour mode are set in DVR local menu (Display chapter).
PTZ Activation	Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm.
Capture	You need to input capture channel number so that system can backup motion detection snapshot file.
Copy	It is a shortcut menu button. You can copy current channel setup to one or more (all) channels.
Save	You can click on "Save" button after you complete setup for one channel, or you can complete the whole setups and then click on "Save" button.
Refresh	Click on this button to get device latest configuration information.

## PTZ

PTZ interface is shown below

Before operations make sure you have set the speed dome address. The DVR and the speed dome connection are OK.



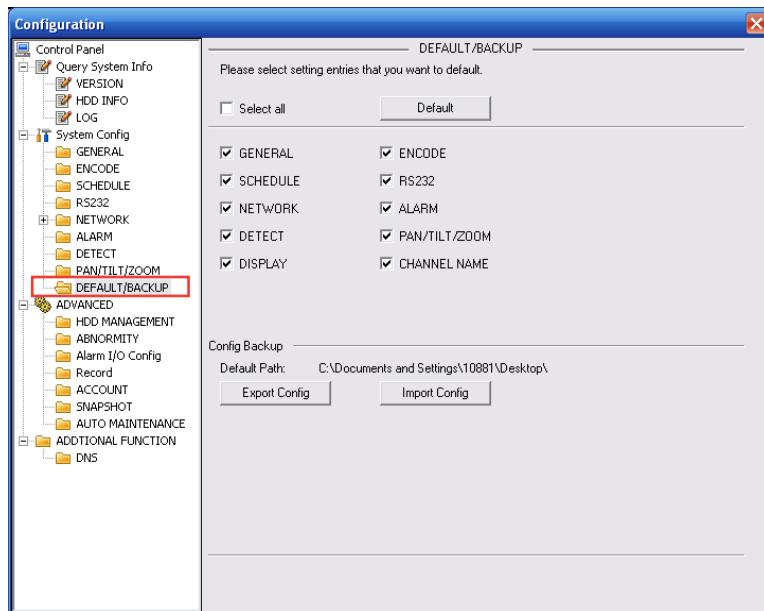
Parameter	Function
Channel	You can select monitor channel from the dropdown list.
Protocol	Select the corresponding dome protocol (such as PELCOD).
Address	Set corresponding dome address. Default value is 1. Please <b>Note</b> your setup here shall comply with your dome address; otherwise you can not control the speed dome.
Baud Rate	Select the dome baud rate. Default setup is 9600.
Data Bit	Default setup is 8. Please set according to the speed dome dial switch setup.
Stop bit	Default setup is 1. Please set according to the speed dome dial switch setup.
Parity	Default setup is none. Please set according to the speed dome dial switch setup.
Save	You can click save button after you complete setup for one channel, or you can complete the whole setups and then click save button.
Refresh	Click this button to get device latest configuration information.

### Default & Backup

Default: Restore factory default setup. You can select corresponding items.

Backup: Export current configuration to local PC or import configuration from current PC.

System cannot restore some information such as network IP address.



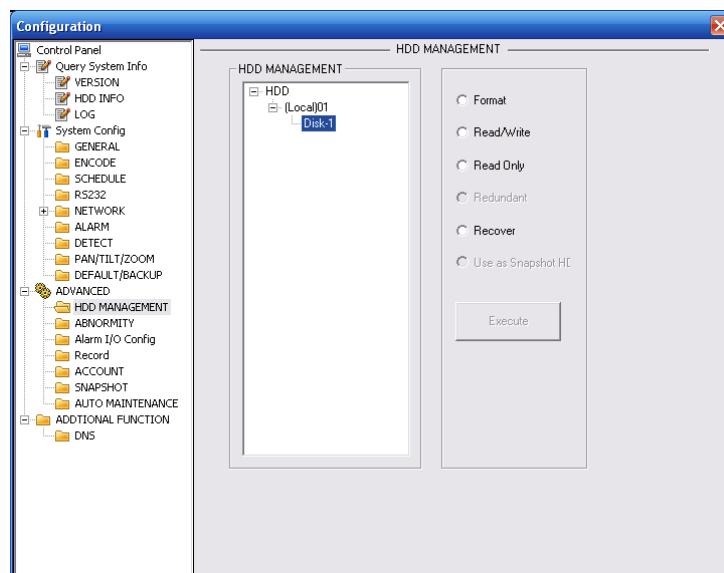
Parameter	Function
Select All	Restore factory default setup.
Export Configuration	Export system configuration to local PC.
Import Configuration	Import configuration from PC to the system.

### 9.3.3 Advanced

#### HDD Management

HDD management includes net storage management and local storage management.

Please select the storage device first and then you can see the items on your right become valid. You can check the corresponding items.

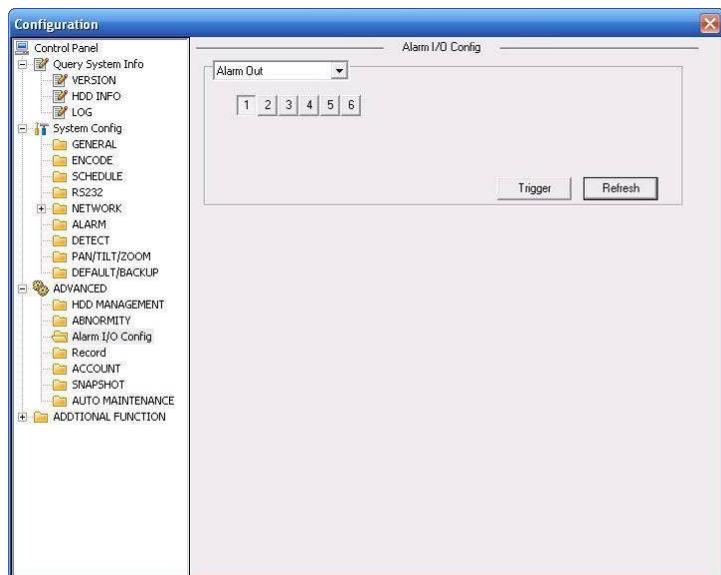


Parameter	Function
Format	Clear data in the disk.
Read / write	Set current disk as read / write
Read only	Set current disk as read.
Redundant	Set current disk as redundant disk.

Please **Note** system needs to reboot to activate current setup.

### Alarm I / O

Here you can search alarm output status



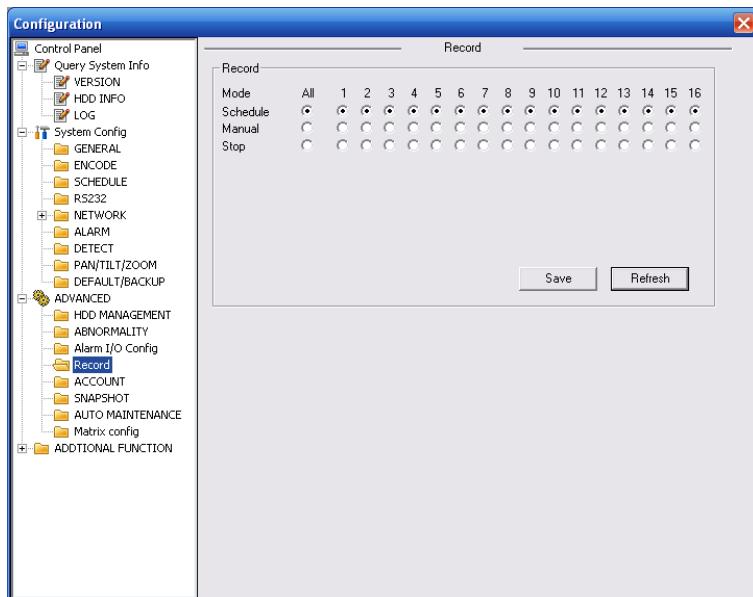
#### Important

The alarm output port should not be connected to high power load directly (It shall be less than 1A) to avoid high current which may result in relay damage. Please use the contactor to realize the connection between the alarm output port and the load.

Parameter	Function
Alarm output	There are six output channels (Multiple choices). Please <b>Note</b> the displayed alarm output channel amount here may vary due to the different series.
Activate	Enable / disable alarm output device. After the Web activated the alarm, you need to cancel the channel and then click the activation button to cancel the alarm, or you need to cancel the alarm in the pop-up dialogue box in local-end.
Refresh	Search alarm output status.

## Record

Record control interface is shown below.

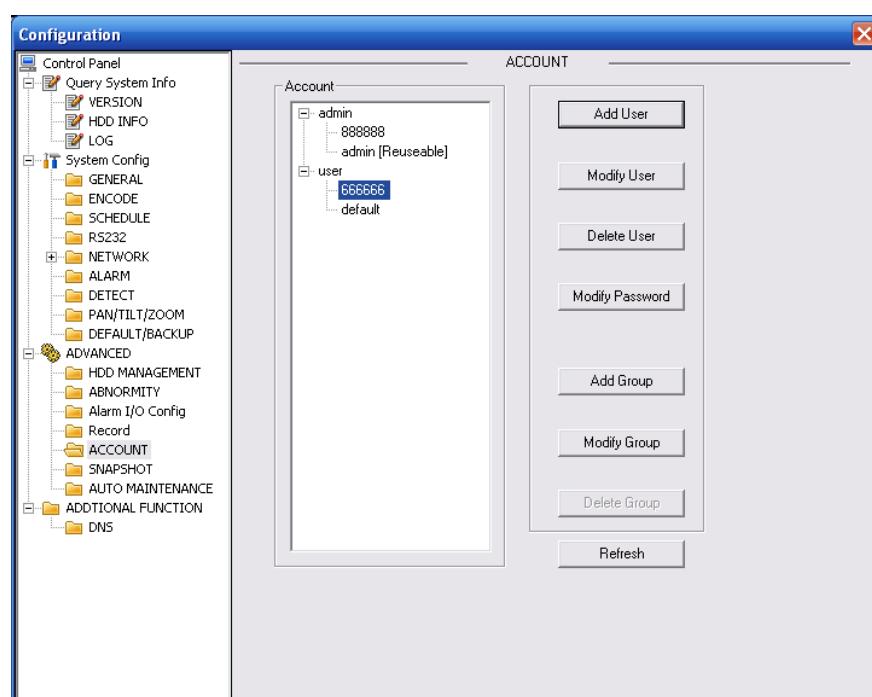


Parameter	Function
Auto	System enables auto record function as you set in record schedule setup.
Manual	Enable corresponding channel to record no matter what period applied in the record setup.
Stop	Stop current channel record no matter what period applied in the record setup.

Operation here is the same as Record chapter.

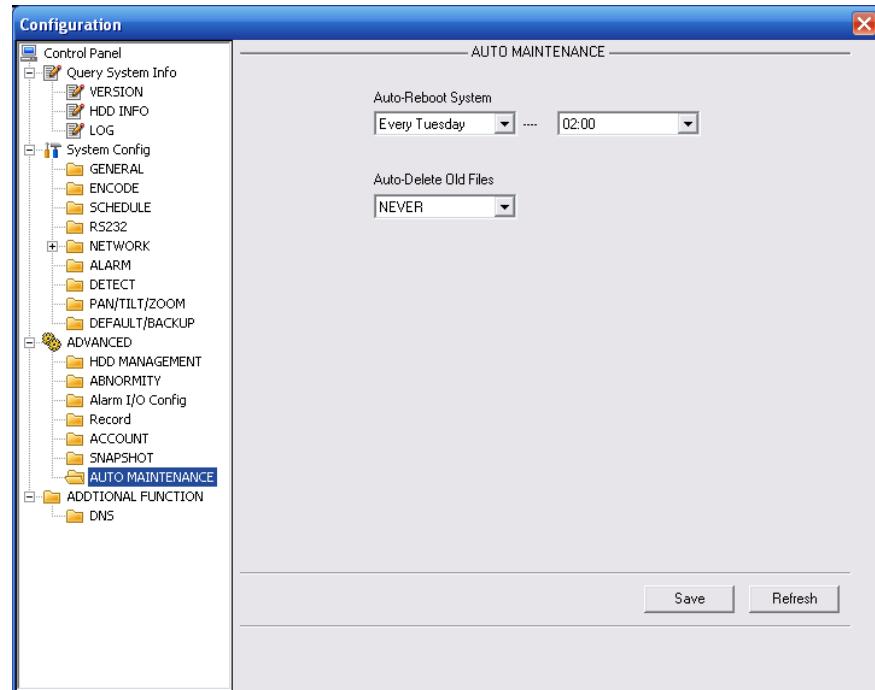
## Account

You can add, remove user or modify password.



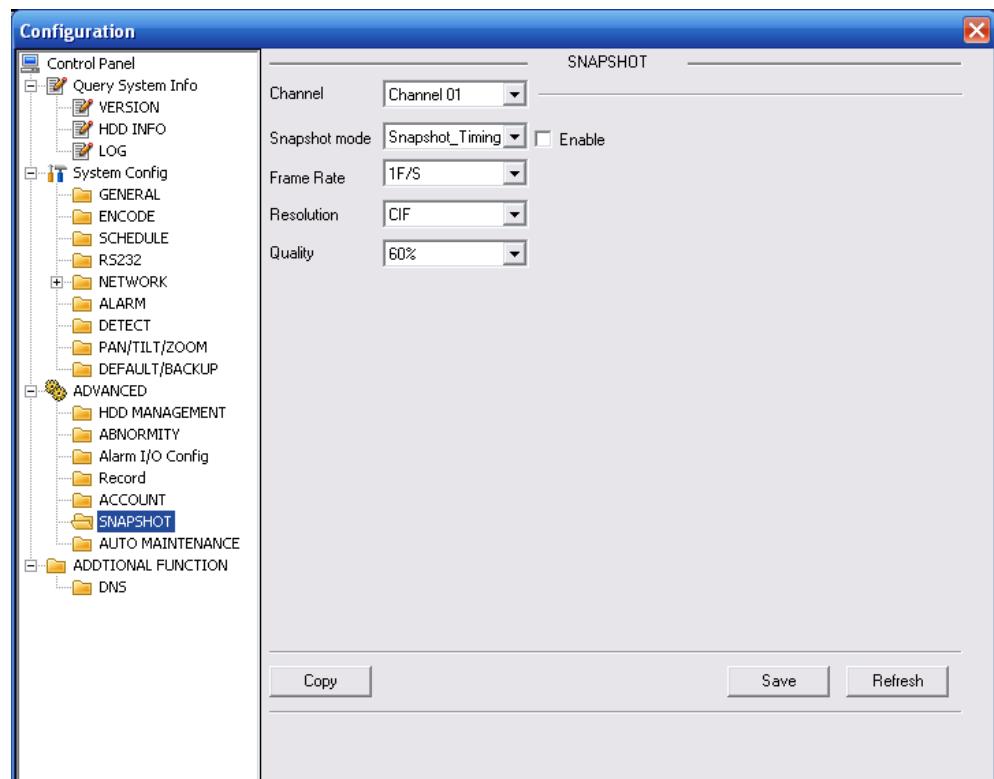
## Auto Maintenance

You can select auto reboot and auto delete old files interval from the dropdown list.



## Snapshot

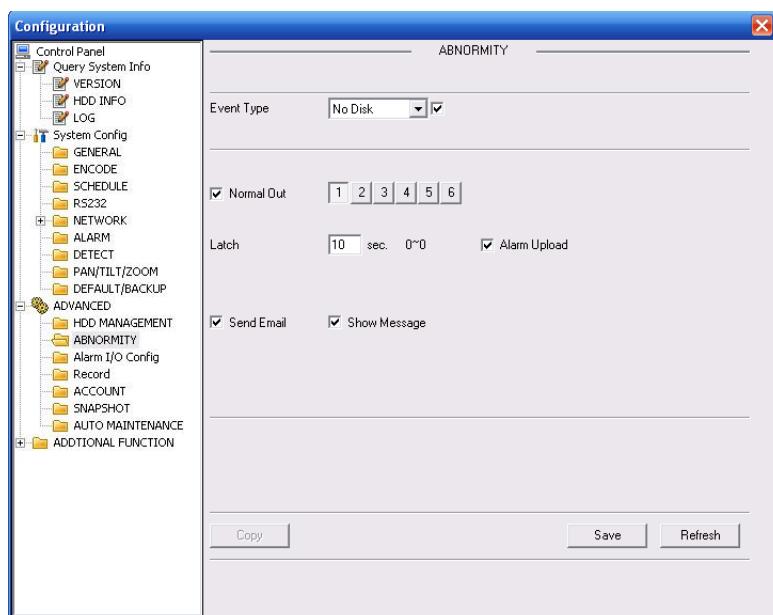
The 1st to the 16th -channel support D1 / HD1 / BCIF / CIF / QCIF.



Parameter	Function
Channel	It is the monitor channel.
Snapshot mode	There are two modes: Timing and activation.
Frame rate	You can select from the dropdown list. The value ranges from 1f / s to 7f / s.
Resolution	You can select from the dropdown list. For 16 series DVR: Channel 1 and channel 9 supports D1 / CIF / QCIF. Channel 2 to channel 8, channel 10 to channel 16 supports CIF / QCIF.
Quality	You can select from the dropdown list. Here is for you to set video quality. There are six options: 10%, 30%, 50%, 60%, 80%, 100%. 100% is the best quality.

### Abnormity

The abnormity interface is shown as below.

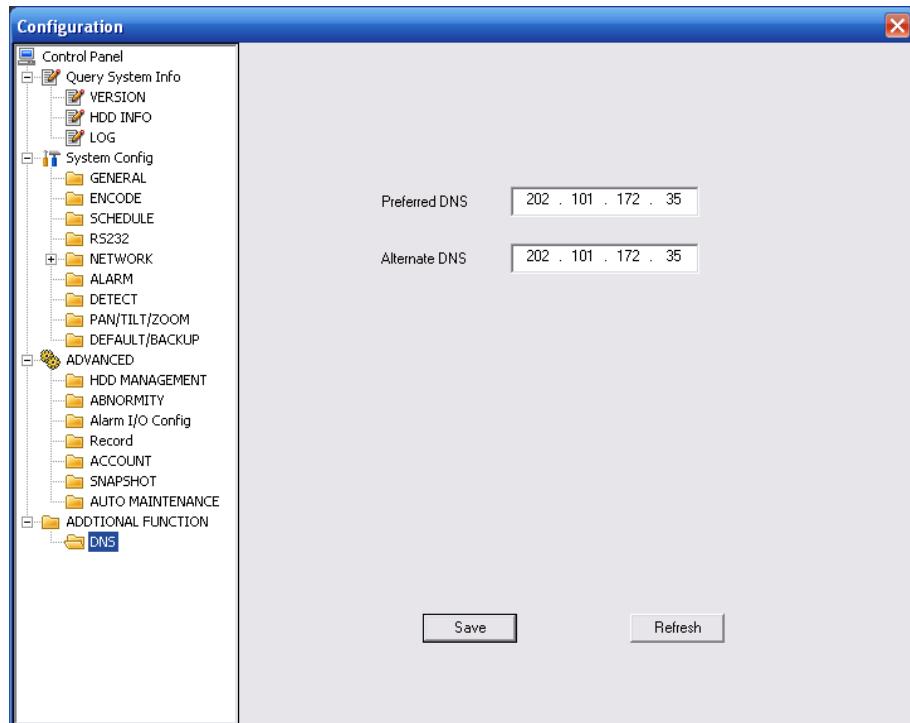


Parameter	Function
Event Type	The abnormal events include: no disk, no space, disk error, net error. You need to draw a circle to enable this function. Activate the function by selecting it from the drop down menu on the right.
Alarm Out	The corresponding alarm activation output channel when alarm occurs, There are six channels.
Latch	The alarm output can delay for the specified time after alarm stops. Then system disables alarm and corresponding activation output. The value ranges from 10s to 300s.
Send email	If you enable this function, system can send out email to alarm the specified user.
Alarm upload	System can upload the alarm signal to the network (includes the alarm centre.)
Show message	System can display alarm information in local DVR screen.

### 9.3.4 Additional Function

#### DNS

You can set server or local operator DNS address.



#### ATM / POS

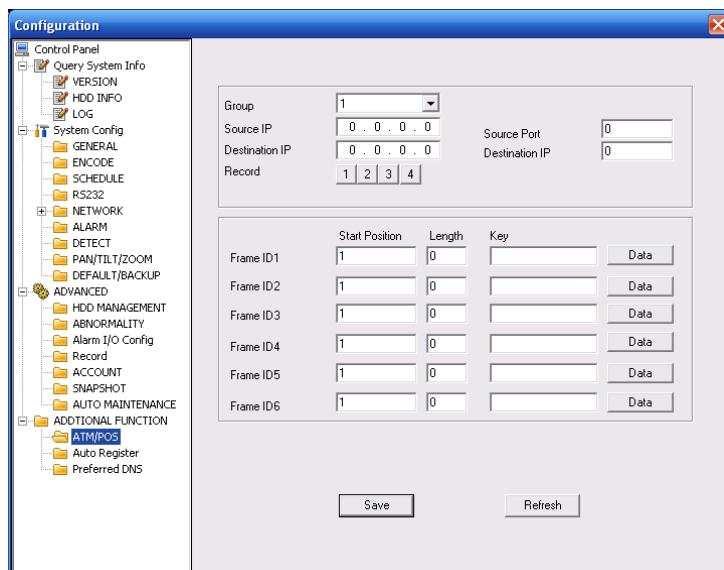
The ATM / POS function is the same with the card overlay function. It is mainly for financial areas to Sniffer, information parse and character overlay. The ATM / POS interface is shown below.

Source IP refers to host IP address that sends out information (usually it is the device host connected to the DVR.)  
 Destination IP refers to other systems that receive information.

There are total four groups IP. The record channel applies to one group (optional) only.

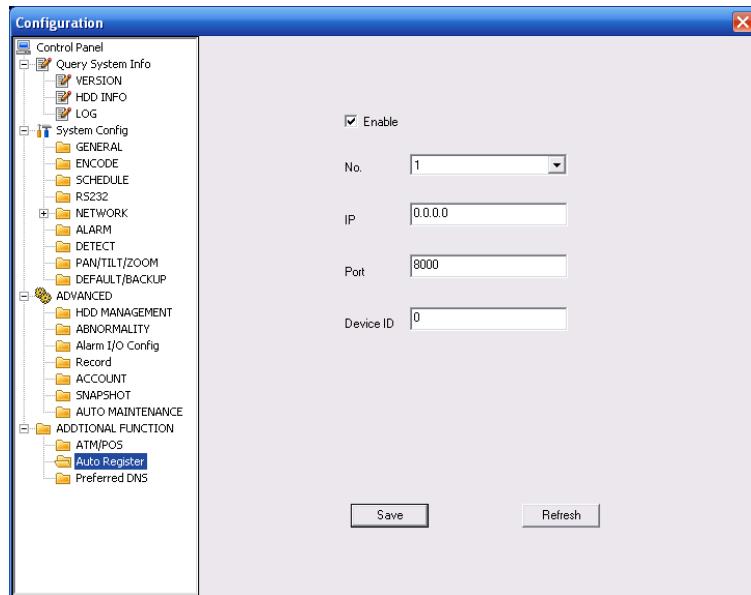
Six frame ID groups verification can guarantee information validity and legal.

The start position, length and data can be set according to your protocol and data packet. There are total four fields.



## Auto Register

Auto register interface is shown as below



Parameter	Function
Enable	Enable auto register function.
No.	Device management server number.
IP	Device management server IP address.
Port	Server port number.
Device ID	Device ID in the device management server.

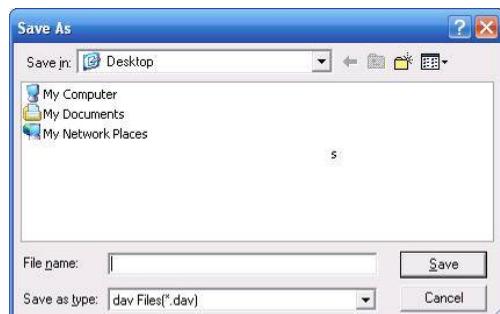
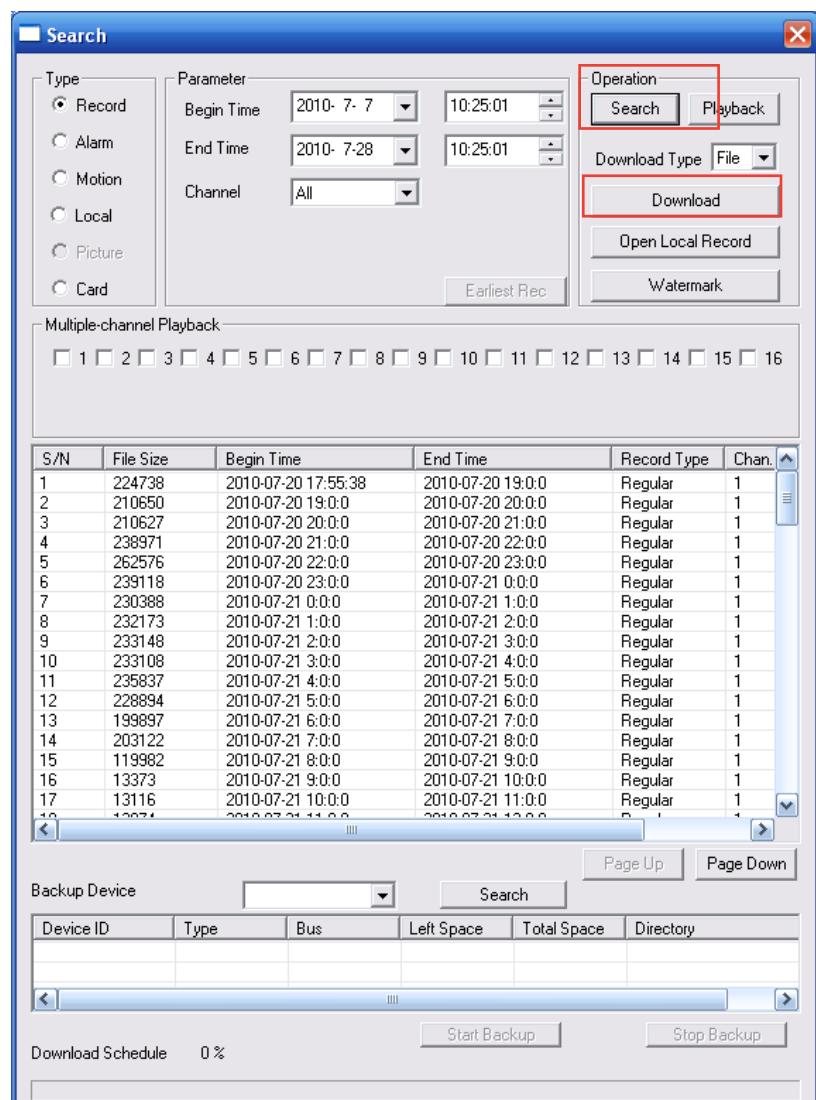
## 9.4 Search

Click search button, you can see an interface is shown as in picture below.

### 9.4.1 Network Download

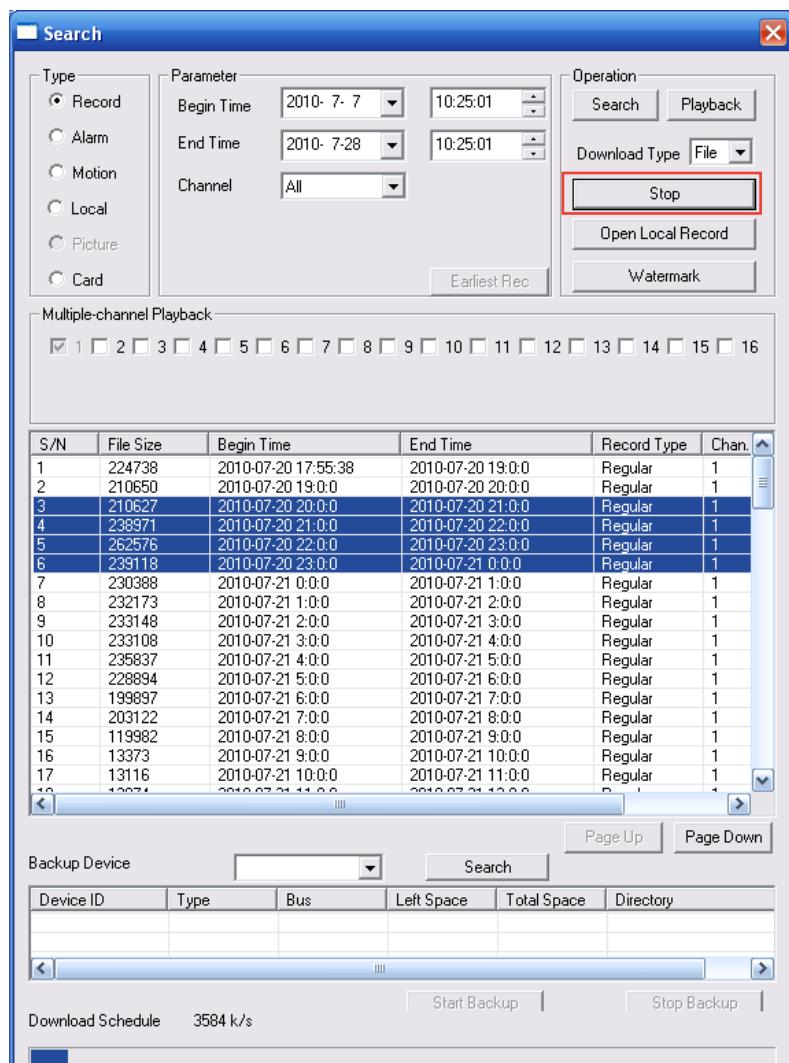
The record type includes the general record, alarm record, motion detect record, local record, picture, card number record. Please select record playback mode, and then select start time, end time and channel. Then please click on "Search" button, you can see the corresponding files in the list.

Select the file(s) you want to download and then click "Download" button, system pops up a dialogue box shown as below, and then you can specify file name and path to download the file(s) to your local pc.



Now you can see system begins download and the download button becomes stop button. You can click it to terminate current operation.

At the bottom of the interface, there is a process bar for your reference.



When download completed, you can see a dialogue box shown below. Please click on "OK" to exit.

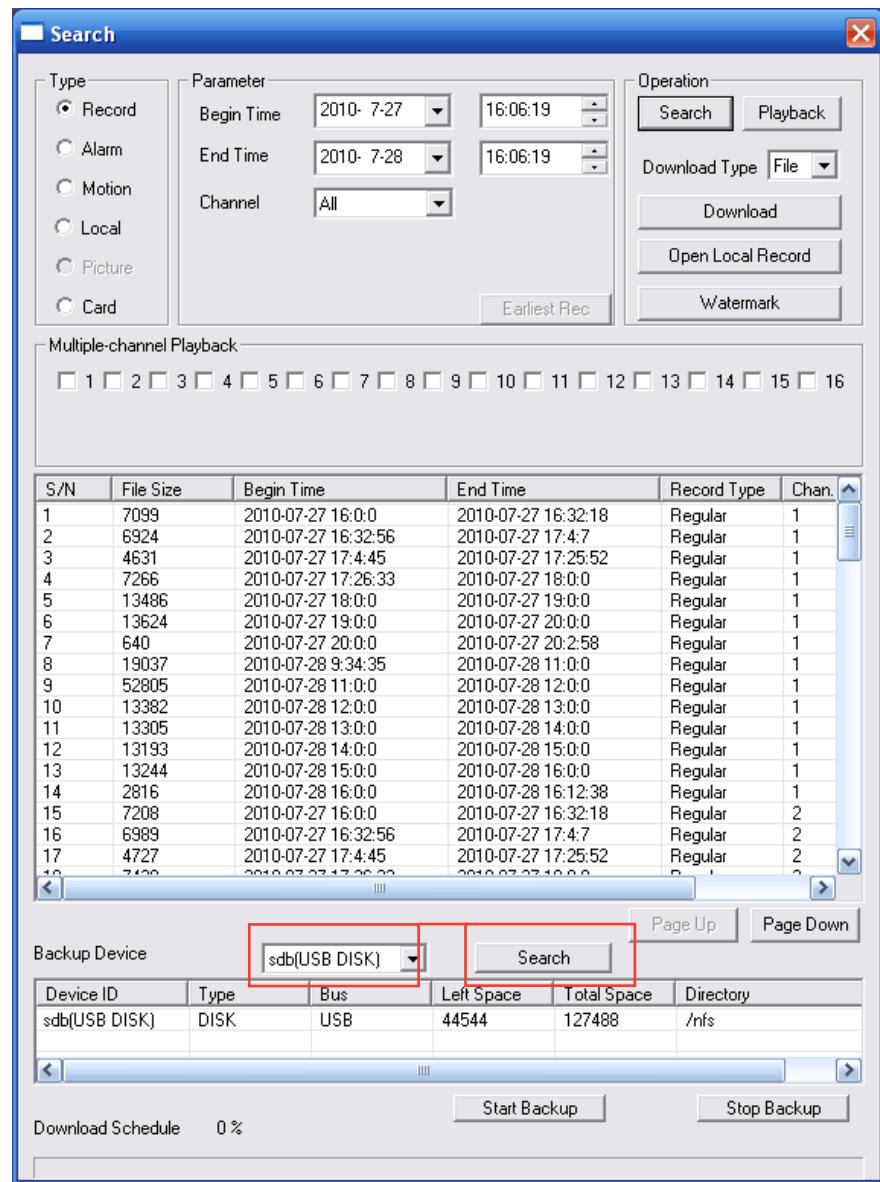


### 9.4.2 Remote Backup

If you want to download the file(s) to your USB device (flash disk / burner) connected to the DVR, you can click the "Search" button at the bottom of the picture below. You can view the devices available and their corresponding information in the bottom pane.

You can select the device from the dropdown list and then select the file(S) from the list.

Click start backup button, system begins backup operation. You can click the stop backup button to terminate current operation. At the bottom of the interface, there is also a process bar for your reference.

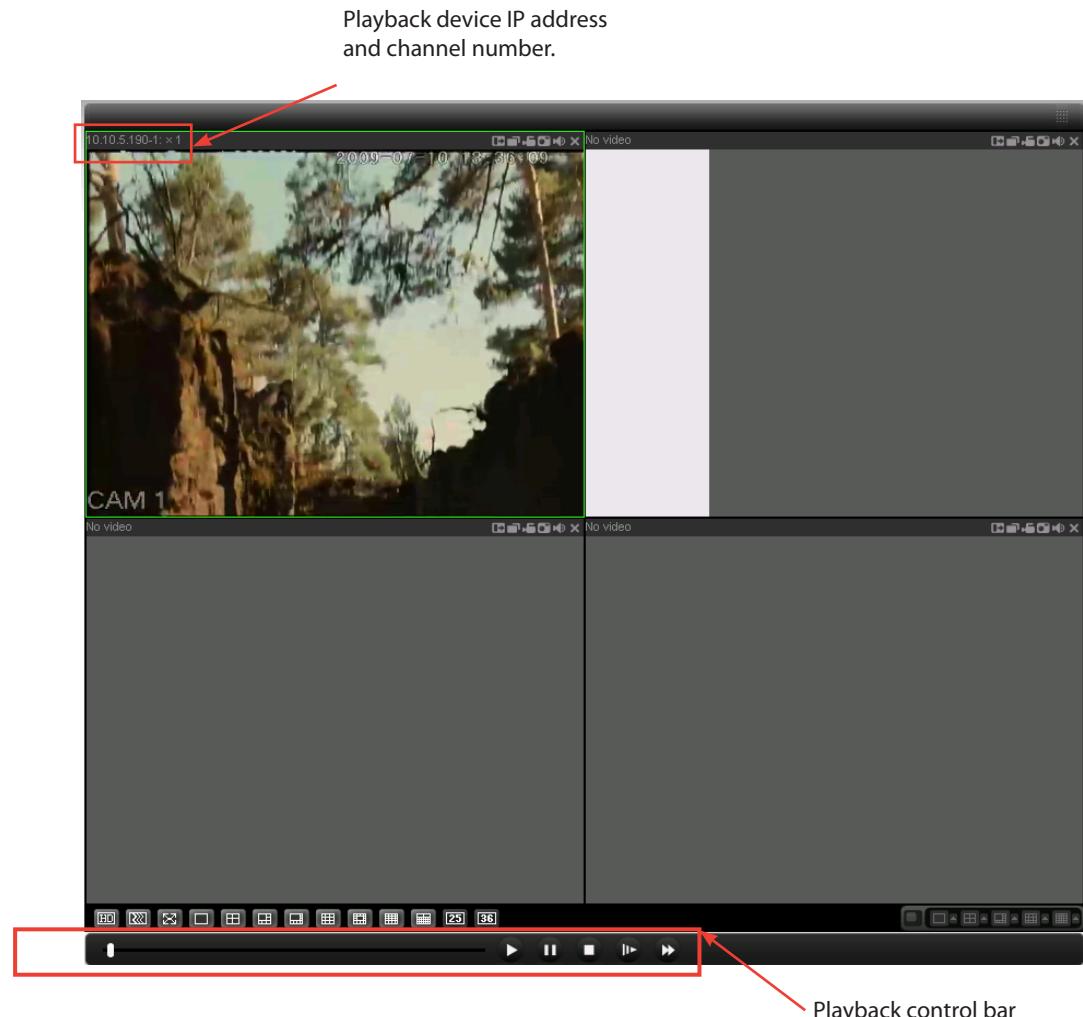


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Refer to the following tab for detailed information.

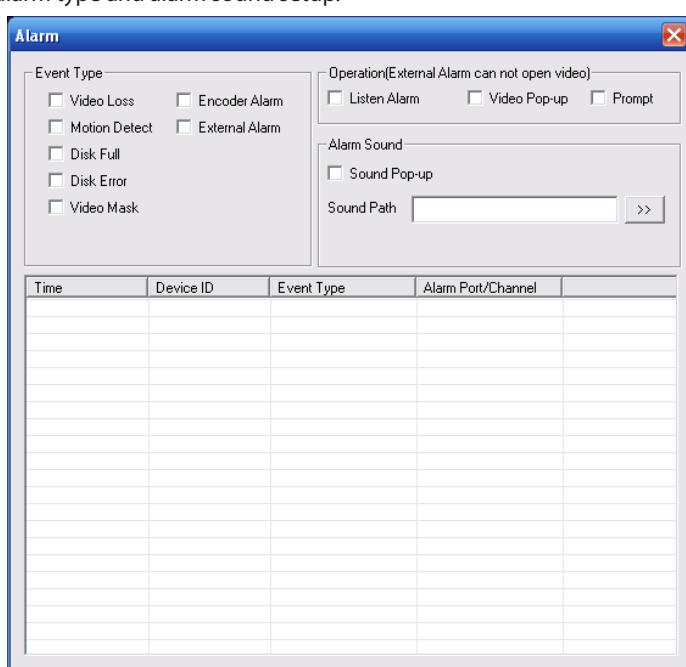
Type	Parameter	Function
Type	Record	Search general record, alarm record and motion detection record.
	Alarm	Search alarm record.
	Motion Detection	Search motion detection record.
	Local	Search local record.
	Snapshot	Search snapshot file.
	Card	This function is not available in current device.
Item	Begin time	Set the file start time. You can select from the dropdown list.
	End time	Set the file end time. You can select from the dropdown list
	Channel	Select the channel from the dropdown list.
Operation	Search	Click this button you can view the recorded file matched your requirements. There are 100 files in one screen. You can use "pg up / down" button to view more files.
	Playback	Select the file first and then click playback button to view the video.
	Download type	Download by file: Select the file(s) and then click "Download" button. Download by time: Download the recorded file(s) within your specified period.
	Download	Select the file you need (multiple choices) and then click "Download" button, you can see system pops up a dialogue box. See below Input the downloaded file name, specify the path and then click "OK" button. You can see system begins download and the download becomes stop button. There is a progress bar for your reference.
	Open local record	Select local record to play.
Multiple-channel playback		System supports playback one file in several monitor channels.

During the playback process, you can see there are control buttons such as "Play", "Pause", "Stop", "Slow Play" and "Fast Play" in the play process bar. You can view current playback file channel name, time and data statistics. In the search result interface, you can select one or more files to download to your local PC.



## 9.5 Alarm

Click alarm function, you can see an interface is shown as in Figure below. Here you can set device alarm type and alarm sound setup.



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Please make sure current device can upload the alarm.

Type	Parameter	Function
Alarm Type	Video loss	System alarms when video loss occurs.
	Motion detection	System alarms when motion detection alarm occurs.
	Disk full	System alarms when disk is full.
	Disk error	System alarms when disk error occurs.
	Camera masking	System alarms when camera is viciously masking.
	Encode alarm	System alarms when peripheral device alarms.
	External alarm	Alarm input device sends out alarm.
Operation	Listen alarm	System notifies web when alarm occurs (you select from the above event type), and then web can notify user.
	Video	When alarm occurs, system auto enables video monitor. This function only applies to video detection alarm (motion detection, video loss and camera masking).
	Prompt	Automatically pops up alarm dialogue box.
	Sound pop up	System sends out alarm sound when alarm occurs. You can specify as you wish.
	Path	Here you can specify alarm sound file.

## 9.6 ABOUT

Click "ABOUT" button, you can view current web client information.

## 9.7 LOG OUT

Click "LOG OUT" button, system goes back to log in interface.  
You need to input user name and password to login again.



## 9.8 Un-install Web Control



You can use web un-install tool "uninstall web.bat" to un-install web control.

Please **Note**, before you un-installation, please close all web pages, otherwise the un-installation might result in error.

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## 10. FAQ

### 1. DVR can not boot up properly.

There are following possibilities:

- Input power is not correct.
- Power connection is not correct.
- Power switch button is damaged.
- Program upgrade is wrong.
- HDD malfunction or something wrong with HDD ribbon.
- Seagate DB35.1-DB35.2-SV35 or Maxtor 17-g has compatibility problem. Please upgrade to the latest version to solve this problem.
- Front panel error.
- Main board is damaged.

### 2. DVR often automatically shuts down or stops running.

There are following possibilities:

- Input voltage is not stable or it is too low.
- HDD malfunction or something wrong with the ribbon.
- Button power is not enough.
- Front video signal is not stable.
- Working environment is too harsh, too much dust.
- Hardware malfunction.

### 3. System can not detect hard disk.

There are following possibilities:

- HDD is broken.
- HDD ribbon is damaged.
- HDD cable connection is loose.
- Main board SATA port is broken.

### 4. There is no video output whether it is one-channel, multiple-channel or all-channel output.

There are following possibilities:

- Program is not compatible. Please upgrade to the latest version.
- Brightness is 0. Please restore factory default setup.
- There is no video input signal or it is too weak.
- Check privacy mask setup or your screen saver.
- DVR hardware malfunctions.

### 5. Real-time video color is distorted.

There are following possibilities:

- When using BNC output, PAL setup is not correct. The real-time video becomes black and white.
- DVR and monitor resistance is not compatible.
- Video transmission is too long or degrading is too huge.
- DVR color or brightness setup is not correct.

### 6. Can not search local records.

There are following possibilities:

- HDD ribbon is damaged.
- HDD is broken.
- Upgraded program is not compatible.
- The recorded file has been overwritten.
- Record function has been disabled.

### 7. Video is distorted when searching local records.

There are following possibilities:

- Video quality setup is too low.
- Program read error, bit data is too small. There is mosaic in the full screen. Please restart the DVR to solve this problem.
- HDD data ribbon error.
- HDD malfunction.
- DVR hardware malfunctions.

---

## **8. There is no audio when monitor.**

There are following possibilities:

- It is not a power picker.
- It is not a power acoustics.
- Audio cable is damaged.
- DVR hardware malfunctions.

## **9. There is audio when monitor but there is no audio when system playback.**

There are following possibilities:

- Setup is not correct. Please enable audio function
- Corresponding channel has no video input. Playback is not continuous when the screen is blue.

## **10. Time display is not correct.**

There are following possibilities:

- Setup is not correct
- Battery contact is not correct or voltage is too low.
- Crystal is broken.

## **11. DVR can not control PTZ.**

There are following possibilities:

- Front panel PTZ error
- PTZ decoder setup, connection or installation is not correct.
- Cable connection is not correct.
- PTZ setup is not correct.
- PTZ decoder and DVR protocol is not compatible.
- PTZ decoder and DVR address is not compatible.
- When there are several decoders, please add 120 Ohm between the PTZ decoder A / B cables furthest end to delete the reverberation or impedance matching. Otherwise the PTZ control is not stable.
- The distance is too far.

## **12. Motion detection function does not work.**

There are following possibilities:

- Period setup is not correct.
- Motion detection zone setup is not correct.
- Sensitivity is too low.
- For some versions, there is hardware limit.

## **13. Can not log in client-end or web.**

There are following possibilities:

- For Windows 98 or Windows ME user, please update your system to Windows 2000 sp4. Or you can install client-end software of lower version. Please **Note** right now, our DVR is not compatible with Windows VISTA control.
- ActiveX control has been disabled.
- Upgrade display card driver.
- Network connection error.
- Network setup error.
- Password or user name is invalid.
- Client-end is not compatible with DVR program.

## **14. There is only mosaic no video when preview or playback video file remotely.**

There are following possibilities:

- Network fluency is not good.
- Client-end resources are limit.
- There is multiple-cast group setup in DVR. This mode can result in mosaic. Usually we do not recommend this mode.
- There is privacy mask or channel protection setup.
- Current user has no right to monitor.
- DVR local video output quality is not good.

---

**15. Network connection is not stable.**

There are following possibilities:

- Network is not stable.
- IP address conflict.
- MAC address conflict.
- PC or DVR network card is not good.

**16. Burn error / USB back error.**

There are following possibilities:

- Burner and DVR are in the same data cable.
- System uses too much CPU resources. Please stop record first and then begin backup.
- Data amount exceeds backup device capacity. It may result in burner error.
- Backup device is not compatible.
- Backup device is damaged.

**17. Keyboard cannot control DVR.**

There are following possibilities:

- DVR serial port setup is not correct
- Address is not correct
- When there are several switchers, power supply is not enough.
- Transmission distance is too far.

**18. Alarm signal cannot be disarmed.**

There are following possibilities:

- Alarm setup is not correct.
- Alarm output has been open manually.
- Input device error or connection is not correct.
- Some program versions may have this problem. Please upgrade your system.

**19. Alarm function is null.**

There are following possibilities:

- Alarm setup is not correct.
- Alarm cable connection is not correct.
- Alarm input signal is not correct.
- There are two loops connect to one alarm device.

**20. Remote control does not work.**

There are following possibilities:

- Remote control address is not correct.
- Distance is too far or control angle is too small.
- Remote control battery power is low.
- Remote control is damaged or DVR front panel is damaged.

**21. Record storage period is not enough.**

There are following possibilities:

- Camera quality is too low. Lens is dirty. Camera is installed against the light. Camera aperture setup is not correct.
- HDD capacity is not enough.
- HDD is damaged.

**22. Cannot playback the downloaded file.**

There are following possibilities:

- There is no media player.
- Upgrade the media player.

**23. Forget local menu operation password or network password**

Please contact your local service engineer or our sales person for help. We can guide you to solve this problem.

## Storage capacity

DVR 4 ch	5 days	15 days	30 days
25 fps / ch	340 Go	1020 Go	2040 Go
	1 HDD 320 Go	1 HDD 1 To*	1 HDD 2 To
12 fps / ch	160 Go	480 Go	960 Go
	1 HDD 160 Go	1 HDD 500 Go	1 HDD 1 To*

DVR 8 ch	5 days	15 days	30 days
25 fps / ch	680 Go	2040 Go	4080 Go
	1 HDD 750 Go	1 HDD 2 To*	2 HDD 2 To
12 fps / ch	320 Go	960 Go	1920 Go
	1 HDD 320 Go	1 HDD 1 To	1 HDD 2 To*

DVR 16 ch	5 days	15 days	30 days
25 fps / ch	1360 Go	4080 Go	8160 Go
	1 HDD 1,5 To	2 HDD 2 To*	4 HDD 2 To
12 fps / ch	640 Go	1920 Go	3840 Go
	1 HDD 750 Go	1 HDD 2 To	2 HDD 2 To*

\* Delivered hard disk

## 11. Specifications

Specifications		4 305 57 / 66 / 45	4 305 58 / 67 / 46	4 305 59 / 68 / 47
System	Main Processor	High performance embedded microprocessor		
	Operating System	Embedded LINUX		
	System Resources	Pentaplex function: live, recording, playback, backup & remote access		
	Control Mode	Front panel, USB mouse, IR remote control, Keyboard, Network		
Video	Input	4 channel, BNC (1.0Vp-p, 75Ω)	8 channel, BNC (1.0Vp-p, 75Ω)	16 channel, BNC (1.0Vp-p, 75Ω)
	Standard	PAL (625Line, 50f / s)		
	Output	1 TV, 1 Spot, BNC (1.0Vp-p, 75Ω), 1 VGA, 1 HDMI		
	Loop Output	4 channel	8 channel	16 channel
Audio	Input	4 channel, BNC (200-2800mV, 30KΩ)	8 channel, BNC (200-2800mV, 30KΩ)	16 channel, BNC (200-2800mV, 30KΩ)
	Output	1 channel, BNC (200-3000mV, 5KΩ)		
	Bidirectional Talk	1 channel Input, BNC (200-2800mV, 30KΩ), 1 channel Output, BNC (200-3000mV, 5KΩ)		
Display	Display Split	1 / 4	1 / 4 / 8	1 / 4 / 8 / 9 / 16
	Resolution	1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768		
	Tour Display	Support		
	Privacy Masking	4 self-defined four-sided zones for privacy masking for each camera		
	OSD	Camera title, time, video loss, camera lock, motion detection, recording		
Recording	Video / Audio Compression	H.264 / G.711		
	Image Resolution	D1 / 4CIF (704 × 576 / 704 × 480) / HD1 (352 × 576 / 352 × 480) / 2CIF (704 × 288 / 704 × 240) / CIF (352 × 288 / 352 × 240) / QCIF (176 × 144 / 176 × 120)		
	Encoding Speed	Main Stream: D1 / HD1 / 2CIF / CIF (1~25 / 30fps)		
	Bit Rate	32~2048Kb / s		
	Image Quality	1~6 level (level 6 is the best, VBR effectively)		
	Recording Mode	Manual, Schedule (Regular(Continuous), MD (Video detection: Motion detection, Camera blank, Video loss), Alarm), Stop		
	Recording Priority	Manual > Alarm > MD > Regular		
	Recording Interval	1~120 min. (default: 60 min.), Pre-record: 1~30 sec., Post-record: 10~300 sec.		
	Trigger Events	Recording, PTZ movement, Tour, Alarm, Email, Spot output		
Video Detection & Alarm	Motion Detection	Zones: 396 (22 × 18), Sensitivity: 1~6 (level 6 is highest)		
	Video Loss & Camera Blank	Support		
	Alarm Input	4 channel	8 channel	16 channel
	Alarm Output	6 channel relay output, including one controllable DC + 12V output port		
	Alarm Relay	6 channel 30VDC 2A, 125VAC 1A (Activation alarm)		
	Playback Channel	1 / 2 / 4 / All		

Specifications		4 305 57 / 66 / 45	4 305 58 / 67 / 46	4 305 59 / 68 / 47
Playback & Backup	Search Mode	Time / Date, Alarm, Motion Detection & Exact search (accurate to second)		
	Playback Functions	Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, Digital zoom (any size)		
	Backup Mode	Flash drive / USB HDD / USB CD / DVD-RW / eSATA Device / Built-in SATA burner / Network download		
	Ethernet	RJ-45 port (1 Go)		
Network	Network Functions	TCP / IP, UDP, DHCP, DNS, IP Filter, PPPOE, DDNS, UPnP, FTP, Email, Alarm Server		
	Remote Operation	Monitor, PTZ control, Playback, System setting, File download, Log information		
Hard Disk	Delivered Hard Disk	1 x 1TB	1 x 2 TB	2 x 2 TB
	Space Occupation	8 SATA ports, 8 HDDs or 6 HDDs + 1 CD / DVD-RW, Max 2TB per HDD supported		
	HDD Management	Hard disk hibernation technology, HDD faulty alarm & Raid (Redundancy)		
	USB Interface	2 ports, 1 for mouse control, 1 for backup		
Auxiliary Interface	eSATA	1 port		
	RS232	communication PC		
	RS485	PTZ control		
	Power Supply	AC 110~230 V, 50 / 60 Hz		
Environmental	Power Consumption	105 W	110 W	120 W
	Working Environment	-10~+55°C / 10~90%RH / 86~106kpa		
	Dimension	2U, 440mm x 460mm x 89mm (W x D x H)		
	Weight	6.5KG		